

## Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



216  
2612  
Vo 97  
C 2

SX

JANUARY 1970

**DDT**  
**[1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHYLENE]**  
**A LIST OF REFERENCES SELECTED AND COMPILED**  
**FROM THE FILES OF THE**  
**PESTICIDES INFORMATION CENTER**  
**NATIONAL AGRICULTURAL LIBRARY**  
**1960 - 1969**

*Library*  
*List*  
*No. 97*





**DDT**

**[1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)ETHYLENE]**

**A LIST OF REFERENCES SELECTED AND COMPILED**

**FROM THE FILES OF THE**

**PESTICIDES INFORMATION CENTER**

**NATIONAL AGRICULTURAL LIBRARY**

**1960 - 1969**

## DDT (1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL) ETHYLENE)

This compilation of 1,064 bibliographic citations covering all aspects of the research efforts on DDT (1,1-Dichloro-2,2-bis (P-Chlorophenyl) ethylene) was prepared from the computerized files of the Pesticides Information Center, National Agricultural Library. All items appearing in this publication have previously appeared in the *Pesticides Documentation Bulletin*.

The articles cited are divided into a categorized bibliography with citations arranged alphabetically by author under the following major subjects:

- 10 Entomology
- 20 Crop Protection
- 30 Livestock Protection
- 40 Commodity Protection
- 50 Environmental Contamination
- 55 Residues
- 60 Toxicology
- 65 Plant Physiology & Biochemistry
- 70 Chemistry
- 80 Engineering
- 90 Industry

**Citations:** Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

**Subject Index:** Subject descriptors appear in the index followed by title arranged numerically by accession number. The Agricultural/Biological Vocabulary developed by the National Agricultural Library is used as a basic thesaurus of descriptors.

**Biographical Index:** Names of first authors are arranged alphabetically, followed by organizational affiliation and accession number.

**Author Index:** Names of personal authors are arranged alphabetically, followed by accession numbers of pertinent citations.

### Loans

Many of the publications cited are in the National Agricultural Library collection and may be borrowed by employees of

the Department of Agriculture and by other libraries. Loan of periodicals is restricted to the Washington, D.C. area. In requesting loans, please include the Library call number found with the citation. Please request loans through the Division of Lending, National Agricultural Library, Beltsville, Maryland 20705.

### Free Distribution

Many publications of the U.S. Department of Agriculture will be supplied free to domestic libraries and organizations upon request. Application should be made to Office of Information, U.S. Department of Agriculture, Washington, D.C., 20250.

Foreign institutions, organizations and agencies may obtain USDA publications through a publications exchange arrangement by writing to the National Agricultural Library, Exchange Section, Beltsville, Maryland 20705. USA.

### Reproduction

All articles listed may be obtained in microfilm or photoprint form from the United States Department of Agriculture, National Agricultural Library, Photoduplication Section, Beltsville, Md. 20705. Copying charges for each periodical or book are:

**MICROFILMS:** \$1.00 for each 30 pages or fraction copied from a single article or book.

**PHOTOPRINTS:** \$1.00 for each 4 pages or fraction copied from a single article or book.

**RUSH SERVICE:** Will be furnished upon payment of \$1.00 additional for each order.

Payment must accompany the order. Cash, Library coupons, check or money order drawn to the National Agricultural Library, U.S.D.A., are acceptable. Payment for orders originating outside of the United States should be made by American bank, or by UNESCO book coupons. Superintendent of Documents coupons and requests to furnish photocopy to be paid from Superintendent of Documents Deposit funds cannot be honored. Credit may be extended only to Government agencies and institutions. Billing address should be indicated.

### Library Coupons

National Agricultural Library coupons, valued at \$1.00 each, may be purchased in any quantity.

---

PLEASE GIVE COMPLETE BIBLIOGRAPHIC INFORMATION AS IT APPEARS IN THIS PUBLICATION FOR EACH ITEM REQUESTED.

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

**CAUTION:** Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.

## TABLE OF CONTENTS

### BIBLIOGRAPHY (Citations)

	<i>Page</i>
10 ENTOMOLOGY.....	1
Systematics.....	1
Physiology and Biochemistry.....	1
Genetics.....	10
Medical Entomology.....	12
20 CROP PROTECTION.....	13
Diseases.....	14
Arthropods.....	14
Nematodes.....	23
Weeds.....	24
Other Pests.....	24
30 LIVESTOCK PROTECTION.....	24
Diseases.....	24
Arthropods.....	25
Parasites.....	26
40 COMMODITY PROTECTION.....	26
Storage Diseases.....	*
Arthropods.....	26
Rodents and Other Pests.....	26
Microbial Contamination.....	*
50 ENVIRONMENTAL CONTAMINATION.....	27
55 RESIDUES.....	28
60 TOXICOLOGY.....	36
65 PLANT PHYSIOLOGY & BIOCHEMISTRY.....	40
70 CHEMISTRY.....	40
80 ENGINEERING.....	42
90 INDUSTRY.....	43
Economics.....	43
Education.....	43
Regulations.....	44
SUBJECT INDEX.....	45
BIOGRAPHICAL INDEX.....	131
AUTHOR INDEX.....	139

---

\*This issue does not contain citations under this category.

Note: Mention of a company name or a proprietary product does not necessarily imply endorsement by the U.S. Department of Agriculture, NATIONAL AGRICULTURAL LIBRARY, PESTICIDES INFORMATION CENTER.





## ENTOMOLOGY

1-69  
EFFECTS OF ALDRIN AND DDT ON SOIL FAUNA AND ARABLE LAND.  
C A Edwards E B Dennis  
*J Sci Food Agr* 12(6):1-279-3  
Jun 1961 382 SO12  
Aldrin, Coleoptera, Diptera, DDT, Nematodes.

2-69  
THE SELECTIVE CONTROL OF SIMULIUM LARVAE BY PARTICULATE INSECTICIDES AND ITS SIGNIFICANCE IN RIVER MANAGEMENT.

W E Kershaw T R Williams S Frost R E Matchett  
M L Mills  
*Roy Soc Trop Med Hyg Trans* 62(1):35-40  
1968 448.9 R813

Chemical control (pests), Chlorinated hydrocarbons, DDT, Insecticides, Larvae, Simulium.

3-69  
STUDIES ON THE EFFICIENCY OF COLLECTING AND COUNTING ANOPHELES GAMBIAE IN VERANDAH-TRAP HUTS.

A Smith S Ecozed  
*Arusha Trop Pesticides Res Inst Misc Rep* 563:5 P.  
Jun 1966 423.92 G7922

Anopheles gambiae, DDT, Experimental insects, Houses, Insect behavior, Insect collecting equipment, Insect traps, Mortality, Research, Tables (data).

4-69  
A SUMMARY OF FOREST AND SHADE TREE INSECT-DISEASE CONDITIONS FOR MAINE 1967.

Augusta State of Maine Forestry Dept.  
*Maine Forest Serv Div Entomol Forest Pest Notes* 6:11 P MAP  
17 Jun 1968 423.9 M282

Coleoptera, Diptera, DDT, Forest insects, Homoptera, Hymenoptera, Lepidoptera, Plant diseases, Spraying, Weather

## SYSTEMATICS

5-69  
POPULATION DYNAMICS OF SPIDER MITES INFLUENCED BY DDT.

H H Attiah H B Boudreaux  
*J Econ Entomol* 57(1):53-57, TABS.  
Feb 1964 421 J822  
DDT, Population, Tetranychidae.

6-69  
BIOLOGY AND CONTROL OF NATIVE AND INTRODUCED FOREST INSECTS IN THE NEARCTIC ZONE.

M L Drebbel  
*Entomol Soc Amer Bull* 14(2):95-98  
Jun 1968 423.9 EN8  
Chemical control (insects), Chlorinated hydrocarbons, DDT, Environment, Forest insects, Insect biology, Insect control, Insect outbreaks, Population statistics, Spraying.

7-69  
MITES COLLECTED FROM DOUGLAS-FIR FOLIAGE IN MONTANA.

D G Fellin  
*J Econ Entomol* 61(3):877-878  
Jun 1968 421 J822  
Choristoneura fumiferana, DDT, Insect collecting equipment, Insect pests, Onychophorus unguis, Pseudotsuga menziesii.

8-69  
USE OF DAPHNIA MAGNA FOR THE MICROBIOASSAY OF PESTICIDES. II. COMPARISON OF MICROBIOASSAY WITH GAS CHROMATOGRAPHY FOR ANALYSIS OF PESTICIDE RESIDUES IN PLANT EXTRACTS.  
D E H Frear N S Kavar  
*J Econ Entomol* 60(5):1236-1239

Oct 1967 421 J822  
DDT, Ethion, Lindane, Pesticide residues.

9-69  
USE OF DAPHNIA MAGNA FOR THE MICROBIOASSAY OF PESTICIDES. I. DEVELOPMENT OF STANDARDIZED TECHNIQUES FOR REARING DAPHNIA AND PREPARATION OF DOSAGE-MORTALITY CURVES FOR PESTICIDES.

D E H Frear J E Boyd  
*J Econ Entomol* 60(5):1228-1236  
Oct 1967 421 J822  
DDT, Heptachlor, Insect rearing, Pesticide residues, Ronnel, Toxaphene.

10-69  
NEW INSECTICIDES FOR CONTROL OF SALT-MARSH MOSQUITOES.

J B Gahan  
*Fla Entomol* 44(1):11-14, 4 REFS., 3 TABS.  
Mar 1961 420 F662  
Culicidae, DDT, Fenthion.

11-69  
FLUCTUATIONS IN AQUATIC INSECT POPULATIONS ASSOCIATED WITH AERIAL APPLICATIONS OF DDT TO NORTHERN MAINE FORESTS.

J G Gorham  
*J Sci Food Agr* 12(6):1-282-1  
Jun 1961 382 SO12  
Aquatic insects, Choristoneura, DDT.

12-69  
SEASONAL ACTIVITY AND CONTROL OF THE MONTEREY PINE TIP MOTH.

C S Koehler M Tauber  
*J Econ Entomol* 57(6):825-829, TABS.  
Dec 1964 421 J822  
Monterey pine tip moth.

13-69  
BIOLOGY AND CONTROL OF DERMATOBIA HOMINIS (L. JR.) IN HONDURAS (DIPTERA: CUTEREBRIDAE).

H D Koone A D Banegas  
*Kans Entomol Soc J* 32(3):100-108, 11 REFS., 1 TAB.  
Jul 1959 420 K13  
Dermatobia, Honduras, Insect biology, Insect control, Oestridae.

14-69  
SPIDERS ON APPLE IN WISCONSIN AND THEIR ABUNDANCE IN A NATURAL AND TWO ARTIFICIAL ENVIRONMENTS.

E F Legner E R Oatman  
*Can Entomol* 96(9):1202-1207, TABS.  
Sep 1964 421 C16  
Apples, Spiders, Wisconsin.

15-69  
AN ECOLOGICAL STUDY OF ARTHROPOD POPULATIONS ON APPLE IN NORTHEASTERN WISCONSIN: SPECIES AFFECTING THE FRUIT.

E R Oatman E F Legner R F Brooks  
*J Econ Entomol* 59(1):165-169  
Feb 1966 421 J822  
Apples, Arthropoda, Ecology, Fruit, Insect population, Wisconsin.

16-69  
AN ECOLOGICAL STUDY OF ARTHROPOD POPULATIONS ON APPLE IN NORTHEASTERN WISCONSIN: INSECT SPECIES PRESENT.

E R Oatman E F Legner R F Brooks  
*J Econ Entomol* 57(6):978-983  
Dec 1964 421 J822  
Apples, Insect ecology, Population, Wisconsin.

17-69  
AN ECOLOGICAL APPROACH TO THE INSECTICIDE PROBLEM.

D Pimentel  
*J Econ Entomol* 54(1):108-114  
Feb 1961 421 J822

Chemical control (insects), Insect ecology, Population statistics.

18-69  
RELATIVE TOXICITY OF INSECTICIDAL FILMS TO ADULTS OF TROGODERMA GRANARIUM EVERTS., ORYZAEPHILUS SUINAMENSIS L. AND LAEMOPHLOEUS MINUTHUS OLIV.

S Pradhan P Sarup  
*J Sci Food Agr* 12(4):1-170-1  
Apr 1961 382 SO12  
Aldrin, Benzene hexachloride, Dieldrin, DDT, Laemophloeus, Oryzaephilus, Toxaphene, Trogloderma.

19-69  
THE EFFECT OF CERTAIN INSECTICIDES ON THE ENTOMOGENOUS FUNGI BEAUVERIA BASSIANA AND METARRHIZIUM ANISOPLIAE.

N V Ramaratne Urs H C Govindu K S Shivashankara Shastri  
*J Invertebrate Pathol* 9(3):398-403 REF  
Sep 1967 421 J826

Beauveria bassiana, Benzene hexachloride, DDT, Endrin, Entomogenous fungi, Insecticides, Malathion, Metarrhizium anisopliae, Parathion, Phosphamidon.

Abstract

20-69  
STUDIES ON THE AGE COMPOSITION OF ANOPHELES CULICIFACES POPULATIONS IN INDIA AT DIFFERENT PHASES OF DEVELOPMENT OF RESISTANCE TO DDT.

*Entomol Soc Amer Ann* 58(6):918-923, 17 REFS., 3 TABS., 3 FIGS.  
Nov 1965 420 EN82  
Anopheles, DDT, India, Insecticide resistant insects.

21-69  
AZODRIN FOR CORN EARWORM AND FALL ARMYWORM CONTROL AND ITS PERSISTENCE IN SWEET CORN.

J R Young M C Bowman  
*J Econ Entomol* 60(5):1282-1284  
Oct 1967 421 J822  
Azodrin, Corn, DDT, Heliothis zea, Insecticide residues, Spodoptera, Spodoptera frugiperda.

## PHYSIOLOGY AND BIOCHEMISTRY

22-69  
NEW JERSEY COURT UPHOLDS GYPSY MOTH SPRAYING.

*Agr Chem* 20(3):72  
Mar 1965 381 AG8  
Insect control, Porthetria, Spraying.

23-69  
MECHANISMS OF INSECT RESISTANCE ARE MANIFOLD AND HIGHLY EFFICIENT.

*Agr Chem* 17(5):22-23  
May 1962 381 AG8  
DDT, Insect behavior, Musca domestica.

24-69  
LOSS OF ACTIVITY OF CHLORINATED HYDROCARBON INSECTICIDES IN SOIL AS MEASURED AGAINST THE EYE GNAT, HIPPELATES COLLUSOR.

*J Sci Food Agr* 12(3):1-125-5  
Mar 1961 382 SO12  
Chloropidae, Dieldrin, DDT, Endrin, SD 4402.

25-69  
TOXICOLOGICAL STUDIES ON A BEETLE, ALPHITOBUS LAEVIGATUS (F.). V. JOINT ACTIONS OF SOME PAIRS OF LIKE AND UNLIKE TOXICANTS.

*J Sci Food Agr* 15(9):11-126-2  
Sep 1964 382 SO12  
Alphitobius, Chemical structure, Dieldrin, DDT, Insecticide synergists, Mathematical analysis.

- 26-69**  
**DEHYDROCHLORINATION AND DDT-RESISTANCE IN AEDES AEGYPTI.**  
 Z H Abedi J R Duffy A W A Brown  
*J Econ Entomol* 56(4):511-517, *BIBL.*, 516-517, *TABS.*  
 Aug 1963 421 J822  
 Aedes aegypti, Dehydrochlorination, DDT, Insecticide resistant insects.
- 27-69**  
**SOLUBILITY OF CARBON-14 DDT IN WATER.**  
 F Acree Jr M K Corbett  
*J Sci Food Agr* 12(1):1-55-5  
 Jan 1961 382 SO12  
 Biological assay, Carbon, Culicidae, DDT.
- 28-69**  
**INSECTICIDE RESISTANCE IN BRACON MELLITOR, A PARASITE OF THE BOLL WEEVIL.**  
 C H Adams W H Cross  
*J Econ Entomol* 60 (4):1016-1020  
 15 Aug 1967 421 J822  
 Anthonomus grandis, Beneficial insects, Bracon mellitor, Carbaryl, DDT, Insecticide resistant insects, Methyl parathion, Parasitic insects, Toxaphene.  
 Abstract
- 29-69**  
**EFFECT OF DDT POISONING ON THE LONGEVITY AND FECUNDITY OF THE PINK BOLLWORM.**  
 P L Adkisson S G Wellso  
*J Econ Entomol* 55(6):842-845  
 Dec 1962 421 J822  
 DDT, Fertility, Insecticides, Longevity, Pectinophora gossypiella, Poisoning, Toxicity.
- 30-69**  
**A NEW DDT-METABOLIZING ENZYME IN THE GERMAN COCKROACH.**  
 M Agosin D Michaeli R Miskus S Nagasawa W M Hoskins  
*J Econ Entomol* 54(2):340-342, 3 *TABS.*, 13 *REFS.*  
 Apr 1961 421 J822  
 Blattella germanica, Dicofof, DDT, Enzymes, Metabolism.
- 31-69**  
**PARTIAL CHARACTERIZATION OF THE IN VIVO METABOLITES OF DDTC14 IN TRIATOMA INFESTANS.**  
 M Agosin A Morello N Scaramelli  
*J Econ Entomol* 57(6):974-977, *TABS.*  
 Dec 1964 421 J822  
 Carbon-14, DDT, Metabolites, Triatoma infestans.
- 32-69**  
**THE INDUCTION OF NAD KINASE BY DDT IN TRIATOMA INFESTANS.**  
 M Agosin J Ilivicky S Litvak  
*Can J Biochem* 45(5):619-626 *REF*  
 May 1967 470 C16E  
 DDT, Enzymes, Kinases, Nymphs, Triatoma infestans.  
 Abstract
- 33-69**  
**SOME PROPERTIES OF THE MICROSOMAL SYSTEM METABOLIZING DDT IN TRIATOMA INFESTANS.**  
 M Agosin N Scaramelli L Gil M E Letelier  
*Compar Biochem Physiol* 29(2):785-793  
 May 1969 444.8 C73  
 DDT, Enzymes, Insect metabolism, Larvae, Microsomes, Triatoma infestans.
- 34-69**  
**HOW TO CONTROL BED BUGS.**  
 U S D A Leaflet (453):8P  
 Feb 1969 1 AG84L  
 Chemical control (insects), Chlorinated hydrocarbons, Cimex lectularius, DDT, Insecticide resistant

- insects, Insecticides, Malathion, Organophosphorus compounds, Pyrethrum, Ronnel, Spraying.
- 35-69**  
**CONTROLLING WASPS.**  
 U S D A Home Gard Bull (122):8P  
 Apr 1969 1 AG84HG  
 Accident prevention, Bees, Chemical control (insects), Chlordane, Chlorinated hydrocarbons, Cicadidae, DDT, Insect physiology, Insecticides, Polistes, Venoms, Vespidae.
- 36-69**  
**CONTROLLING THE JAPANESE BEETLE.**  
 U S D A Home Gard Bull (159):15P  
 Mar 1969 1 AG84HG  
 Accident prevention, Chemical control (insects), Chlordane, Chlorinated hydrocarbons, Cultural control (insects), DDT, Milky disease, Natural control (insects), Plant injuries, Popillia japonica, Toxaphene.
- 37-69**  
**THE RELATIVE SUSCEPTIBILITY OF THE LARVAE OF SPODOPTERA MAURITIA ACRONYCTOIDES (GUENEE) (LEPIDOPTERA: NOCTUIDAE) TO SEVERAL CONTACT INSECTICIDES.**  
 K Ando M Sherman  
*Hawaii Entomol Soc Proc* 19(3):349-360 *REF*  
 Jun 1967 420 H312  
 Carbaryl, Chlordane, DDT, Fenthion, Insecticide resistant insects, Insecticides, Larvae, Malathion, Spodoptera.
- 38-69**  
**THE OLD HOUSE BORER IN EASTERN STATES.**  
 Anonymous  
*Pest Contr Oper News* 27(10-11,OCT-NOV):22-24  
 1967 SB951.A1P4  
 Biological control (insects), Cerambycidae, Chemical control (insects), Chemicals, Chlordane, Chlorinated hydrocarbons, Coleoptera, Dieldrin, DDT, Fumigation, Hylotrupes bajulus, Hymenoptera, Insect behavior, Insect identification, Insect pests, Insect physiology, Insecticide application, Insecticides, Lindane, Parasitic insects, Predaceous insects, Spiders, Wood borers, Zoogeography.
- 39-69**  
**EARLY SEASON INSECTS NO PROBLEM FOR B. A. JORDAN.**  
 Anonymous  
*Miss Farmer* 17(5):6  
 May 1969 6 M6992  
 Aphididae, Chemical control (insects), Chlorinated hydrocarbons, Crop yields, DDT, Insect pests, Insecticides, Plant injuries, Plant protection, Thysanoptera, Toxaphene.
- 40-69**  
**DESTRUCTION OF WASPS.**  
 Anonymous  
*Phar J* 201(5469):168  
 24 Aug 1968 396.8 P49  
 Benzene hexachloride, Carbon tetrachloride, Chemical control (insects), Chlordane, Cyanides, DDT, Dusting, Hymenoptera, Rotenone, Toxicity.
- 41-69**  
**SUPERFLIES BEAT DICHLORODIPHENYL-TRICHLOROETHANE.**  
 Anonymus  
*Sci News Lett* 94(21):520  
 23 Nov 1968 470 SC124  
 Diptera, DDT, Insecticide resistant insects, Insecticides, Pest control, Research.
- 42-69**  
**DDT RESISTANCE IN HONEY BEES.**  
 E L Atkins Jr L D Anderson  
*J Econ Entomol* 55(5):791-792, *TABS.*  
 Oct 1962 421 J822  
 Apis mellifera, DDT, Insecticide resistant insects.
- 43-69**  
**INFLUENCE OF CERTAIN BIOLOGICAL AND ENVIRONMENTAL FACTORS ON INSECTICIDE TOLERANCE OF THE LYGUS BUG LYGUS HESPERUS.**  
 O G Bacon W D Riley G Zweig  
*J Sci Food Agr* 15(9):11-133-11  
 Sep 1964 382 SO12  
 DDT, Insect physiology, Insecticide resistant insects, Lipids, Lygus, Temperature, Toxaphene.
- 44-69**  
**RESISTANCE TO ORGANOCHLORINE INSECTICIDES IN THE TUBER FLEA BEETLE, EPITRIX TUBERIS GENT. (COLEOPTERA: CHRYSOMELIDAE), IN BRITISH COLUMBIA.**  
 F L Banham D G Finlayson  
*Entomol Soc British Columbia J* 64:17-22 *MAY*  
 01 Aug 1967 420 B77 (2)  
 Chlorinated hydrocarbons, Chrysomelidae, Diazinon, Dieldrin, DDT, Epitrix tuberis, Insecticide resistant insects, Zoogeography. English abstract
- 45-69**  
**WASP NESTS.**  
 C C Banks  
*New Zeal J Agr* 116(2):64-65,67  
 Feb 1968 23 N48J  
 Chemical control (insects), DDT, Insect biology, Smoke, Vespidae.  
 The chemical control of wasps in New Zealand is discussed. The application techniques for gasoline, smoke and DDT are given.
- 46-69**  
**SYNTHESES OF THE ALIPHATIC DEUTERIUM ANALOGS OF DDT AND TDE AND THEIR TOXICITY AND DEGRADATION WHEN APPLIED TO ADULT HOUSE FLIES.**  
 R J Barker  
*J Econ Entomol* 53(1):35-41, *BIBL.* 40-41, *TABS.*  
 Feb 1960 421 J822  
 Deuterium, DDT, Electronic structure, Musca domestica, TDE, Toxicology.
- 47-69**  
**CHANGE IN THE PHOTIC REACTION DUE TO DDT IN THE GRAIN WEEVIL, SITOPHILUS GRANARIUS (L.)(COLEOPTERA: CURCULIONIDAE).**  
 C A Barlow  
*Can J Zool* 46(1):35-40 *REF*  
 Jan 1968 470 C16D  
 DDT, Light, Photosensitization, Sitophilus granarius.
- 48-69**  
**RESISTANCE TO DDT IN THE ADULT CODLING MOTH AND REFERENCE CURVES FOR GUTHION AND CARBARYL.**  
 M M Barnes H R Moffitt  
*J Econ Entomol* 56(6):722-725, *TABS.*  
 Dec 1963 421 J822  
 Azinphosmethyl, Carbaryl, Carpocapsa pomonella, DDT, Insecticide resistant insects.
- 49-69**  
**ELECTROGRAPHIC RECORDING OF FOREGUT ACTIVITY IN LARVAE OF GALERIA MELLONELLA.**  
 R L Beard  
*Entomol Soc Amer Ann* 53(3):346-351  
 May 1960 420 EN82  
 Carbon dioxide, DDT, Electromyograms, Epinephrine, Galleria, Gastrointestinal system, Intestines, Larvae, Peristalsis, Serotonin.
- 50-69**  
**CUMULATIVE EFFECT OF SUBLETHAL DOSES OF MYRISTYL CHLOROACETATE ON A HIGHLY DDT -RESISTANT STRAIN OF MUSCA DOMESTICA L.**  
 S Bettini M Boccacci G Natalizi  
*J Econ Entomol* 53(1):99-101, *BIBL.*  
 Feb 1960 421 J822  
 DDT, Musca domestica, Myristyl chloroacetate.



- 51-69**  
MECHANISMS OF INSECT RESISTANCE TO THE CHLOROHYDROCARBON INSECTICIDES.  
F R Bradbury H Standen  
*J Sci Food Agr* 11(2):92-100  
Feb 1960 382 SO12  
Chlorohydrocarbons, Insecticide resistant insects.
- 52-69**  
UTILIZATION OF DDT RESISTANCE AS A MEANS OF INVESTIGATING THE POSSIBLE EXISTENCE OF HOST-SPECIFIC STRAINS OF THE BOLLWORM, *HELIOTHIS ZEA*.  
J R Bradley Jr J B Graves D F Clower  
*J Econ Entomol* 59(2):460-462  
Apr 1966 421 J822  
Cotton, DDT, *Heliothis zea*, Insect hosts, Insecticide resistant insects, Larvae.
- 53-69**  
RESISTANCE TO DDT IN *HELIOTHIS VIRESCENS*.  
J R Brazzel  
*J Econ Entomol* 56(5):571-574  
Oct 1963 421 J822  
DDT, *Heliothis virescens*, Insecticide resistant insects.
- 54-69**  
DDT RESISTANCE IN *HELIOTHIS ZEA*.  
J R Brazzel  
*J Econ Entomol* 57(4):455-457  
Aug 1964 421 J822  
DDT, *Heliothis zea*, Insecticide resistant insects.
- 55-69**  
DDT-RESISTANCE IN *HELIOTHIS ZEA*.  
J R Brazzel  
*J Sci Food Agr* 15(12):11-294-3  
Dec 1964 382 SO12  
DDT, Insecticide resistant insects, Texas.
- 56-69**  
INSECTICIDAL OPERATIONS AGAINST CHIRONOMID MIDGES ALONG THE BLUE NILE.  
A W A Brown D J McKinley H W Bedford M Qutubuddin  
*Bull Entomol Res* 51(4):789-801  
Jan 1960 421 B87  
Chlorinated hydrocarbons, Dichloro-2,2-bis-(p-chlorophenyl) ethylene, 1,1-, DDT, Insecticide application, *Tanytarsus lewisi*.
- 57-69**  
THE RESPONSE OF THE LABELLAR TASTE RECEPTORS OF DDT-RESISTANT AND NON-RESISTANT HOUSEFLIES (*MUSCA DOMESTICA*) TO DDT.  
L B Browne R W Kerr  
*Entomol Exp Appl* 10(3):337-346  
1967 421 EN895  
Chemoreceptors, DDT, Insecticide resistant insects, *Musca domestica*, Sense organs. German summary  
Abstract
- 58-69**  
CARBARYL, PHOSPHAMIDON, AND DDT TESTS ON THE WESTERN HEMLOCK LOOPER IN WASHINGTON.  
P E Buffam  
*J Econ Entomol* 58(5):1006-1008  
Oct 1965 421 J822  
Carbaryl, DDT, Phosphamidon, Washington.
- 59-69**  
ABSORPTION AND METABOLISM OF C14-LABELED DDT BY DDT-SUSCEPTIBLE AND DDT-RESISTANT PINK BOLLWORM ADULTS.  
D L Bull P L Adkisson  
*J Econ Entomol* 56(5):641-643, TABS.  
Oct 1963 421 J822  
Absorption, C14, DDT, Insect metabolism, Insecticide resistant insects, *Pectinophora gossypiella*.
- 60-69**  
ANTI-FEEDING EFFECT OF DDT ON BOLLWORM AND TOBACCO BUDWORM LARVAE.  
H R Bullock D A Wolfenbarger  
*J Econ Entomol* 61(6):1760-1761  
16 Dec 1968 421 J822  
Acetone, Biological assay, DDT, Emulsifying agents, Feeding, *Heliothis virescens*, *Heliothis zea*, Insect behavior, Larvae, Toxaphene. DDT and toxaphene tested separately and together.
- 61-69**  
COCKROACH CONTROL - PAST, PRESENT AND FUTURE.  
G S Burden  
*Pest Contr* 35(9):20,22,24,26  
Sep 1967 449.8 EX8  
Blattidae, Carbamates, Chemical control (insects), Chemosterilants, Chlorinated hydrocarbons, DDT, Fumigants, Organophosphorus compounds, Pyrethrum.
- 62-69**  
THE INSECTICIDAL POTENCY OF GAMMA-BHC AND THE CHLORINATED CYCLODIENE COMPOUNDS AND THE SIGNIFICANCE OF RESISTANCE TO THEM.  
J R Busvine  
*Bull Entomol Res* 55(2):271-288, 48 REFS., 3 TABS.  
Aug 1964 421 B87  
Benzene hexachloride, DDT, Insecticide resistant insects.
- 63-69**  
RESULTS OF TESTS WITH *BACILLUS THURINGIENSIS* BERLINER AGAINST GYPSY MOTH LARVAE.  
G E Cantwell S R Dutky J C Keller C G Thompson  
*J Invertebrate Pathol* 3(2):143-147  
Jun 1961 421 J826  
DDT, Land improvement, Larvae.
- 64-69**  
SOME EXPERIENCES WITH THE USE OF *BACILLUS THURINGIENSIS* BERL. AGAINST FOREST PESTS. (GE)  
M Capek A Heskova  
*Entomophaga Mem Hors Ser* (2):337-339  
1964 421 EN835M  
*Bacillus thuringiensis*, Biological control (pests), *Choristoneura murinana*, DDT, Dosage, Forest insects, *Porthetria dispar*, Tree diseases. English summary.
- 65-69**  
PINK BOLLWORM RESISTANCE TO DDT IN THE LAGUNA AREA OF MEXICO.  
A J Chapman L B Coffin  
*J Econ Entomol* 57(1):148-150  
Feb 1964 421 J822  
DDT, Insecticide resistant insects, Mexico, *Pectinophora gossypiella*.
- 66-69**  
INTERNAL DDE PRODUCTION BY NORMAL AND DDT-RESISTANT LARVAE OF *AEDES AEGYPTI*.  
A N Chatteraj A W A Brown  
*J Econ Entomol* 53(6):1049-1051, 11 REFS., 3 TABS.  
Dec 1960 421 J822  
*Aedes aegypti*, DDE, DDT, Insecticide resistant insects, Larvae.
- 67-69**  
LABORATORY STUDIES ON RESISTANCE OF THE BODY LOUSE TO INSECTICIDES.  
P H Clark M M Cole  
*J Sci Food Agr* 15(10):11-221-3  
Oct 1964 382 SO12  
Carbaryl, DDT, Insecticide resistant insects, Lindane, Malathion, *Pediculus*.
- 68-69**  
CONTROL OF THE BOLL WEEVIL ON COTTON WITH ULTRA-LOW-VOLUME (UNDILUTED) TECHNICAL MALATHION.  
T C Cleveland W P Scott T B Davich C R Parencia Jr  
*J Econ Entomol* 59(4):973-976, TABS.  
Aug 1966 421 J822  
*Anthonomus grandis*, Cotton, DDT, Malathion, *Musca domestica*, Poultry.
- 69-69**  
INHERITANCE OF RESISTANCE TO DDT IN *BLATTELLA GERMANICA*.  
D G Cochran M H Ross  
*J Econ Entomol* 55(1):88-89  
Feb 1962 421 J822  
*Blattella germanica*, DDT, Inheritance, Insecticide resistant insects.
- 70-69**  
RESISTANCE TO TELODRIN IN THE GERMAN COCKROACH, *BLATTELLA GERMANICA*.  
D G Cochran M H Ross  
*J Sci Food Agr* 15(12):11-294-2  
Dec 1964 382 SO12  
*Blattella germanica*, Chlordane, Dieldrin, DDT, Insecticide resistant insects, Telodrin.
- 71-69**  
DEVELOPMENT OF RESISTANCE TO SYNERGIZED PYRETHRINS IN BODY LICE, AND CROSS RESISTANCE TO DDT.  
M M Cole P H Clark  
*J Econ Entomol* 54(4):649-651, 19 REFS.  
Aug 1961 421 J822  
Allethrin, DDT, Malathion.
- 72-69**  
PRACTICAL IMPORTANCE OF RESISTANCE TO INSECTICIDES IN ANOPHELES. (FR)  
J Coz J Hamon J Mouchet  
*Entomol Med Cahiers* 3(4):127-135 REF  
Mar 1965 SB931.A103  
Anopheles, Biological control (insects), Carbamates, Chemical control (insects), Chemosterilants, Chlorinated hydrocarbons, Dichlorvos, Dieldrin, DDT, Fenthion, Insect genetics, Malathion, Medical entomology. Insecticide resistance of 14 species of Anopheles is discussed.
- 73-69**  
SUSCEPTIBILITY OF ARCTIC MOSQUITOES TO DDT AND MALATHION.  
T J Curtin  
*J Econ Entomol* 59(6):1528  
Dec 1966 421 J822  
*Aedes impiger*, *Aedes nigripes*, Culicidae, DDT, Malathion.
- 74-69**  
A COMPARISON OF SOME HOUSE FLY BIOASSAY METHODS.  
P A Dahm J Gurland I Lee J Berlin  
*J Econ Entomol* 54(2):343-347, 14 REFS., 3 TABS.  
Apr 1961 421 J822  
Biological assay, DDT, Insecticide resistant insects, *Musca domestica*.
- 75-69**  
STUDIES ON RESISTANCE TO MALATHION IN THE MOSQUITO, *CULEX TARSALIS*.  
D J Darrow F W Plapp  
*J Econ Entomol* 53(5):777-781, TABS.  
Oct 1960 421 J822  
Coumaphos, Culex, Dieldrin, DDT, Malathion.
- 76-69**  
THE ERADICATION OF *GLOSSINA MORITANS* SUBMORITANS NEWST. AND *GLOSSINA TACHINOIDES* WEST. IN PART OF A RIVER FLOOD PLAIN IN NORTHERN NIGERIA BY CHEMICAL MEANS. PART III.  
H Davies P Blasdale  
*Bull Entomol Res* 51(2):265-270

Jul 1960 421 B87

Chemical control (insects), Northern nigeria.

77-69

EFFECT OF DDT ON INCORPORATION OF C14-LABELED GLUCOSE INTO PROTEIN AND SOLUBLE INTERMEDIATES OF NYMPHAL TRIATOMA INFESTANS.

E Del Villar D Mosnaim  
*Exp Parasitol* 21(2):186-194 REF  
Oct 1967 436.8 EX7

Amino acids, Carbon isotopes, DDT, Glucose, Insect metabolism, Insecticide resistant insects, Insecticides, Nymphs, Proline, Proteins, Radioactive tracers, Triatoma infestans, Tricarboxylic acid cycle.

Abstract: Third and fourth instar larvae differ in their tolerance to DDT, the latter being more resistant to the insecticide. The labeling pattern of protein amino acids indicates the presence of an active Krebs cycle in these insects which is apparently inhibited by DDT only in third instar larvae.

78-69

RESIDUAL EFFECT OF A NUMBER OF INSECTICIDES ON ADULTS OF THE CARABID PSEUDOPHONUS RUFIPES (DEJ.).

J. B. M. van Dinther  
*Entomophaga* 8(1):43-48  
1963 421 EN835

Carabidae, Carbamates, Carbaryl, Dieldrin, DDT, Harpalus rufipes, Insecticide residues, Insecticides, Parathion, Toxaphene. French summary

79-69

UPTAKE OF DDT BY THE AMERICAN COCKROACH CENTRAL NERVOUS SYSTEM.

J L Eaton J G Sternburg  
*J Econ Entomol* 60(6):1699-1703 REF  
Dec 1967 421 J822

Central nervous system, Chemoreceptors, DDT, Periplaneta americana.

Abstract

80-69

TEMPERATURE AND THE ACTION OF DDT ON THE NERVOUS SYSTEM OF PERIPLANETA AMERICANA (L.).

J L Eaton J Sternburg  
*J Insect Physiol* 10(3):471-485, BIBL. 484-485  
Jun 1964 421 J825

DDT, Insect temperature, Nervous system, Periplaneta americana.

81-69

TEMPERATURE AND THE ACTION OF DDT ON THE COCKROACH NERVOUS SYSTEM.

J LeR Eaton  
*Diss Abstr Sect B* 27 11)04097B-4098B  
May 1967 Z5055.U49D53

Blattidae, Central nervous system, DDT, Temperature.

82-69

CAUSES OF RESISTANCE TO DOT IN A DIAZINON-SELECTED AND A DDT-SELECTED STRAIN OF HOUSE FLIES.

S El Bashier  
*Entomol Exp Appl* 10(1):111-126 REF  
1967 421 EN895

Diazinon, DDT, Insecticide resistant insects, Musca domestica.

83-69

THE INFLUENCE OF THE FUNGUS BEAUVERIA BASSIANA VUILL. ON THE FERTILITY AND THE DIAPAUSE OF LEPTINOTARSA DECEMLINEATA SAY. (FR)

M M El-Tahtoui  
*Entomophaga Mem Hors Ser* (2):549-553  
1964 421 EN835M

Beauveria bassiana, DDT, Entomogenous fungi, Fertility, Insect diseases, Insect physiology, Integrated control (insects), Larvae, Leptinotarsa decemlineata. English summary.

84-69

BIOLOGY AND CONTROL OF LEOPARD MOTH ON PEAR TREES IN THE UNITED ARAB REPUBLIC.

M E Eldefrawi I Hanbal S M Hammad  
*Fao Plant Protect Bull* 15:70-76 REF  
Aug 1967 421 P692  
Carbaryl, Chemical control (insects), DDT, Malathion, Metamorphosis, Pears, Plant pest control, Zeuzera pyrina.

85-69

COMPARISON OF STEROLS IN RESISTANT AND SUSCEPTIBLE HOUSEFLIES, MUSCA DOMESTICA.

O Enan R Miskus R Craig  
*J Sci Food Agr* 15(10):11-221-1  
Oct 1964 382 SO12  
DDT, Insecticide resistant insects, Malathion, Musca domestica, Parathion, Sterols.

86-69

A POSSIBLE EXPLANATION OF THE CHEMICAL CONTROL OF SIMULIIDAE LARVAE.

G Field  
*J Econ Entomol* 54(3):607-608, 5 REFS.  
Jun 1961 421 J822  
DDT, Larvae, Simuliidae.

87-69

INSECTICIDAL DUSTS AGAINST JAPANESE BEETLES AND EUROPEAN CHAFERS FOR DISINSECTIZATION OF TRANSPORT VEHICLES.

B J Fiori V A Puglisi D W Hamilton G E Cavin  
*J Econ Entomol* 62(1):8-9  
17 Feb 1969 421 J822  
Amphimallon majalis, Carbaryl, Chemical control (insects), DDT, Dusting, Insecticides, Malathion, Popillia japonica, Vehicles.

88-69

HERCULES AC-5722 AS A RESIDUAL SPRAY FOR ADULT MOSQUITOES.

J B Gahan G C LaBreaque H G Wilson  
*J Econ Entomol* 54(1):63-67  
Feb 1961 421 J822  
Anopheles, Culicidae, Hercules AC-5722, Isopropylphenyl methyl-carbamate-m.

89-69

SENSITIVITY TO THE SOLUBLE HEAT-STABLE TOXIN OF BACILLUS THURINGIENSIS OF STRAINS OF MUSCA DOMESTICA TOLERANT TO CHEMICAL INSECTICIDES.

P F Galichet  
*J Invertebrate Pathol* 9(2), 261-262.  
Jun 1967 421 J826  
Bacillus thuringiensis, DDT, Insecticide resistant insects, Lindane, Musca domestica, Toxins.

90-69

AN ANALYSIS OF HOUSE FLY RESISTANCE TO INSECTICIDES IN CALIFORNIA.

G P Georgioui W R Bowen  
*J Econ Entomol* 59(1):204-214  
Feb 1966 421 J822  
California, Diazinon, Dieldrin, Dimetilan, Insecticide resistant insects, Insecticides, Malathion, Musca domestica.

91-69

BEHAVIOURAL RESPONSES TO CONTACT WITH DDT IN ANOPHELES ATROPARVUS.

J L Gerold J J Laarman  
*Nature* 215 (5100), 518-520  
29 Jul 1967 472 N21  
Anopheles atroparvus, DDT, Insect behavior.

92-69

PYRIDINE COMPOSITION AND METHOD FOR ATTRACTING INSECTS. PATENT 3,325,355.

L D Goodhue  
*Us Patent Office Offic Gaz* 839(2):693  
13 Jun 1967 156.65 OF2  
Attractants, Chemical control (insects), Insecticides, Patents, Pyridine compounds.

93-69

THE AFFECT OF INSECTICIDES ON INSECTS. IN: EICHLER, W., ED., HANDBOOK OF INSECTICIDE KNOWLEDGE. SB951.E4. (GE)

A Goos  
389-410  
1965  
Chlorinated hydrocarbons, DDT, Insect anatomy, Insecticides, Organophosphorus compounds.

94-69

THE TOXICITY OF INSECTICIDES TO LARVAE OF THE CODLING MOTH, CYDIA POMONELLA (L.). I. INTRINSIC TOXICITY AND TOXICITY AND PERSISTENCE. (ABSTRACT).

M Gratwick J M Sillibourne R P Tew  
*Pesticide Progr* 5(3):72-73  
May 1967 79.8 P434  
Apples, Biological assay, Carpocapsa pomonella, Chemical control (insects), DDT, Insecticide application, Insecticide residues, Larvae, Moths, Toxicology. Abstract taken from Bull. Entom. Res. 56(2):367-376

95-69

RESISTANCE TO SOME CHLORINATED HYDROCARBON INSECTICIDES IN THE BOLLWORM, HELIOTHIS ZEA.

J B Graves J B Roussel J R Phillips  
*J Econ Entomol* 56(4):442-444, TABS  
Aug 1963 421 J822  
Endrin, Heliothis zea, Hydrocarbons, Insecticide resistant insects, Insecticides.

96-69

TOPICAL APPLICATION AND INSECTICIDE RESISTANCE STUDIES ON THE HONEY BEE.

J B Graves O Mackensen  
*J Econ Entomol* 58(5):990-993  
Oct 1965 421 J822  
Insecticide application.

97-69

DIELDRIN-RESISTANCE IN A STRAIN OF AEDES AEGYPTI (L.) FROM PUERTO RICO.

A M Guneidy  
*Bull Entomol Res* 55(3):519-525, 10 REFS., 2 TABS.  
Dec 1964 421 B87  
Aedes aegypti, Culicidae, Dieldrin, DDT, Insecticide resistant insects, Puerto Rico.

98-69

THE EFFICACY OF A MIXTURE OF BACILLUS THURINGIENSIS BERL. AND OF DDT AGAINST AGROTIS IPSILON ROTT. (NOCTUIDAE). (FR)

A Haenggi  
*Entomophaga* 10(4):343-348  
1965 421 EN835  
Agrotis ipsilon, Bacillus thuringiensis, Biological control (insects), Chemical control (insects), DDT, Insect control, Insecticides, Larvae. German summary.

99-69

NOTES ON THE MOSQUITOES OF THE ISLAMIC REPUBLIC OF MAURITANIA. (DIPT. CULICIDAE). (2). (FR)

J Hamon M Maffi P Grenier C S Ouedraogo D Djime  
*Soc Entomol France Ann* 11(2):371-383 REF  
1966 420 F84  
Anopheles, Culicidae, Dieldrin, DDT, Insect ecology, Insect vectors, Insecticide resistant insects, Malaria.

100-69

THE BIOLOGY OF THE EUROPEAN CORN BORER, OSTRINIA NUBILALIS (HUBNER), IN MANITOBA.

W Hanec G A Laurence  
*Entomol Soc Manitoba Proc* 22:3  
1966 420 EN88  
Carbaryl, Chemical control (insects), DDT, Insect biology, Ostrinia nubilalis, Parathion.



- 101-69**  
DDT RESISTANCE IN ONCOPERA.  
R J Hardy  
*Tasmanian J. Agr* 39(4):338-342  
Nov 1968 23 T182T  
Chemical control (insects), DDT, Dosage, Insect pests, Insecticide application, Larvae, Spraying.
- 102-69**  
CONTROL OF A CORN STEM WEEVIL (HYPERODES HUMILIS), AND FALL ARMYWORM WITH DDT AND PARATHION IN SOUTH FLORIDA.  
E D Harris Jr  
*J Econ Entomol* 55(1):83-85, TABS.  
Feb 1962 421 J822  
DDT, Insect control, Parathion, Spodoptera frugiperda
- 103-69**  
SPECIFICITY IN INSECTICIDES.  
C C Harris  
*Gardeners Chron* 164(2):22  
12 Jul 1968 80 G162  
Chlorinated hydrocarbons, DDT, Insect control, Insecticide synergists, Insecticides, Malathion, Organophosphates, Organophosphorus compounds, Pheromones, Pyrethrum, Sex attractants, Synergists, Toxicity.
- 104-69**  
TOXICOLOGICAL STUDIES ON CUTWORMS. I. LABORATORY STUDIES ON THE TOXICITY OF INSECTICIDES TO THE DARK-SIDED CUTWORM.  
C R Harris H J Svec  
*J Econ Entomol* 61(3):788-793 REF  
Jun 1968 421 J822  
Biochemistry, DDT, Euxoa messoria, Experimental insects, Insecticides, Larvae, Research, Soil series, Toxicology
- 105-69**  
SEED-CORN MAGGOT RESISTANCE TO ALDRIN IN ILLINOIS.  
C R Harris  
*J Econ Entomol* 62(4):957-958  
15 Aug 1969 421 J822  
Aldrin, Carbofuran, Chlordane, Chlorinated hydrocarbons, Diazinon, Dieldrin, Disulfoton, DDT, Hylemya platura, Insecticide resistant insects, Lindane, Organophosphorus compounds, Phorate, Several experimental organophosphorus insecticides were included in the tests.
- 106-69**  
ON THE BIOLOGY OF SIMULIUM DAMNOSUM THEOBALD, 1903, THE MAIN VECTOR OF ONCHOCERCIASIS IN THE MAHENGE MOUNTAINS, ULANGA, TANZANIA.  
W Hausermann  
*Acta Trop* 26(1):29-69 MAP REF  
1969 475 AC8  
Chemical control (insects), DDT, Epidemiology, Insect control, Insect ecology, Insect vectors, Onchocerciasis, Simulium damnosum, Zoogeography.  
The ecology, population variations, and distribution of Simulium damnosum, the insect vector of human onchocerciasis in Tanzania are discussed. Control with DDT is recommended.
- 107-69**  
SOME CHEMICAL CHARACTERISTICS OF A DDT-INDUCED NEUROACTIVE SUBSTANCE FROM COCKROACHES AND CRAYFISH.  
W B Hawkins J Sternburg  
*J Sci Food Agr* 15(10):11-190-3  
Oct 1964 382 SO12  
Blattidae, Central nervous system, Crayfish, DDT, Tetraethyl pyrophosphate, Tetramethyl pyrophosphate.
- 108-69**  
THE LENGTH OF LARVAL STAGE IN PYRETHROID-RESISTANT AND SUSCEPTIBLE STRAINS OF THE HOUSE FLY, MUSCA DOMESTICA L. (JA)  
A Hayashi N Ikeno  
*Jap J Sanitary Zool* 19(3):204-206 REF  
20 Oct 1968 QL99.E3  
Chlorinated hydrocarbons, DDT, Insect physiology, Insecticide resistant insects, Larvae, Musca domestica, Pyrethrum, English summary.
- 109-69**  
INTERACTIONS OF DDT WITH THE NERVOUS SYSTEM OF THE RESISTANT AND SUSCEPTIBLE GERMAN COCKROACHES.  
M Hayashi F Matsumura  
*Nature* 215(5109):1510-1512  
30 Sep 1967 472 N21  
Biochemistry, Blattella germanica, Chemical control (insects), DDT, Immunity, Insecticides, Nervous system, Poisoning.
- 110-69**  
O Hecht O Mancera A Barrera  
*J Econ Entomol* 53(4):634-640  
Aug 1960 421 J822  
Anopheles, DDT.
- 111-69**  
DDT-RESISTANCE IN TWO STRAINS OF CULEX PIPIENS PIPIENS LINNAEUS FROM NEW JERSEY.  
A H Hemmerlein  
*N J Mosquito Exterm Ass Proc* 54:158-163  
Mar 1967 420 N46  
Culex pipiens pipiens, DDT, Feeding, Insecticide resistant insects, Insecticides, Mortality, Research.
- 112-69**  
CARABIDS COLLECTED IN A DDT-SPRAYED PEACH ORCHARD IN ONTARIO (COLEOPTERA: CARABIDAE).  
D H C Herne  
*Can Entomol* 95(4):357-362  
Apr 1963 421 C16  
DDT, Insecticide application, Ontario.
- 113-69**  
THE SUSCEPTIBILITY TO INSECTICIDES OF POPULATIONS OF AEDES AEGYPTI FROM QUEENSLAND, AUSTRALIA.  
G H S Hooper  
*61(4):451-456, MAP REF*  
Dec 1967  
Aedes aegypti, Dieldrin, DDT, Fenthion, Insecticide resistant insects, Insecticides.
- 114-69**  
METABOLISM OF INSECTICIDES BY CULEX PIPIENS QUINQUEFASCIATUS. I. IN VIVO METABOLISM OF DDT BY LARVAE.  
G H S Hooper  
*J Econ Entomol* 61(2):490-493 REF  
Apr 1968 421 J822  
Culex pipiens quinquefasciatus, DDT, Insect metabolism, Insecticides, Larvae.
- 115-69**  
DIELDRIN-RESISTANT AND DDT-RESISTANT STRAINS OF THE SPOTTED ROOT MAGGOT APPARENTLY RESTRICTED TO HETEROZYGOTES FOR RESISTANCE.  
G H S Hooper A W A Brown  
*J Econ Entomol* 58(5):824-830  
Oct 1965 421 J822  
Dieldrin, DDT, Maggots, Spotted-root maggot.
- 116-69**  
THE MECHANISM OF DDT RESISTANCE IN THE SPOTTED ROOT MAGGOT EUXESTA NOTATA.  
G H S Hooper  
*J Econ Entomol* 58(4):608-611, BIBL. 610-611, TABS.  
Aug 1965 421 J822  
DDT, Insecticide resistant insects, Spotted root maggot, Spotted-root maggot.
- 117-69**  
TOXICOLOGY AND PHYSIOLOGY OF DDT RESISTANCE IN THE GERMAN COCKROACH.  
G H S Hooper  
*J Econ Entomol* 62(4):846-849 REF  
15 Aug 1969 421 J822  
Blattella germanica, Carbon isotopes, Chlorinated hydrocarbons, Cuticle, DDT, Insect metabolism, Insect physiology, Insecticide resistant insects, Insecticides, Metabolites, Radioactive tracers, Regression analysis, TDE.
- 118-69**  
THE EFFECT OF LARVAL DENSITY ON MORTALITY OF CULEX PIPIENS FATIGANS DUE TO DDT AND DIELDRIN.  
G H S Hooper  
*World Health Organ Bull* 36(1):179-180  
1967 449.9 W892B  
Culex pipiens quinquefasciatus, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Larvae.
- 119-69**  
GAS-LIQUID CHROMATOGRAPHY ANALYSIS OF DDT METABOLISM IN AEDES AEGYPTI.  
G H S Hooper  
*J Econ Entomol* 61(3):858-859  
Jun 1968 421 J822  
Aedes aegypti, Assay, Biochemistry, Chromatography, DDT, Extracts, Insect physiology, Larvae, Metabolism, Water.
- 120-69**  
METABOLISM OF INJECTED PROLINE IN DDT-POISONED GERMAN COCKROACHES.  
W Hoy H T Gordon  
*J Econ Entomol* 54(1):198-199  
Feb 1961 421 J822  
Blattella germanica, DDT, Metabolism, Proline.
- 121-69**  
EFFECTS OF FOREST SPRAYING WITH DDT ON AQUATIC INSECTS OF SALMON STREAMS IN NEW BRUNSWICK.  
F P Ide  
*J Fish Res Board Can* 24(4), 769-805, REF  
Apr 1967 442.9 C16J  
Aquatic insects, Chironomidae, Diptera, DDT, Ephemeroptera, Fish, Forests, Plecoptera, Simuliidae, Spraying, Streams, Trichoptera, Water pollution.  
Abstract included.
- 122-69**  
EFFECTS OF FOREST SPRAYING WITH DDT ON AQUATIC INSECTS OF SALMON STREAMS IN NEW BRUNSWICK.  
F P Ide  
*Can Fish Res Board J* 24(4):769-805 MAP REF  
Apr 1967 442.9 C16J  
Aquatic insects, Chemical control (insects), DDT, Insect populations, Insecticide residues, Insecticides, Water pollution.  
The changes in aquatic insect populations were analyzed after aerial applications of DDT were made in forested areas of New Brunswick.
- 123-69**  
THE EFFECTS OF CHEMICAL INSECTICIDES AND INSECTICIDAL ADJUVANTS OF A HELIOTHIS NUCLEAR POLYHEDROSIS VIRUS.  
C M Ignoffo E L Montoya  
*J Invertebrate Pathol* 8(3):409-412, 18 REFS., 3 TABS.  
Sep 1966 421 J826  
Carbaryl, DDT, Endrin, Heliothis zea, Methyl parathion, Polyhedroses.
- 124-69**  
GLUTATHIONE TURNOVER IN TRIATOMA INFESTANS TREATED WITH 2,2-BIS-(P-CHLOROPHENYL)-1,1,1-TRICHLOROETHANE.  
J Ilivicky M Agosin  
*Exp Parasitol* 20(3):345-356 REF  
Jun 1967 436.8 EX7

Biochemistry, DDT, Ethyl chloride, Glutathione, Reduviidae, Triatoma. English abstract

125-69

TEMPERATURE EFFECTS ON THE TOXICITY OF FIVE INSECTICIDES AGAINST FIVE SPECIES OF STORED-PRODUCT INSECTS.

N T Iordanou F L Watters

*J Econ Entomol* 62(1):130-135 REF

17 Feb 1969 421 J822

Bromophos, Chemical control (insects), Cryptolestes ferrugineus, DDT, Insecticides, Lindane, Malathion, Methoxychlor, Oryzaephilus surinamensis, Temperature, Toxicology, Tribolium castaneum, Tribolium confusum.

126-69

LABORATORY TESTS OF LARVICIDES FOR MOSQUITO CONTROL IN POTABLE WATERS. (ABSTRACT).

W L Jakob

*Pesticide Progr* 5(3):74

May 1967 79.8 P434

Aedes aegypti, Chemical control (insects), Dieldrin, DDT, Insecticide residues, Insecticide resistant insects, Larvicides, Water. This abstract is from Mosquito News 25 (3): 316-319. 1965.

127-69

COCKCHAFERS, MELOLONTHA MELOLONTHA, L. AND M. HIPPOCASTANI, FABR.

J Joergensen

*J Sci Food Agr* 12(5):1-227-1

May 1961 382 SO12

Aldrin, Chlordane, DDT, Lindane, Scarabaeidae.

128-69

INSECTS AND RELATED PESTS OF HOUSE PLANTS; HOW TO CONTROL THEM.

G V Johnson F F Smith

*U S D A Home Gard Bull* (67):16P

Jan 1969 1 AG84HG

Chemical control (pests), Chlordane, Chlorinated hydrocarbons, DDT, Household pests, Insect pests, Lindane, Malathion, Organophosphorus compounds, Pesticide application, Rotenone, Spraying. Many household pests were discussed.

129-69

STABLE FLY TOLERANCE TO RESIDUES OF DDT, DIELDRIN, MALATHION AND DIAZINON.

L Johnston T E Blakeslee

*J Econ Entomol* 54(3):528-530, 4 REFS.

Jun 1961 421 J822

Diazinon, Dieldrin, DDT, Insecticide residues, Malathion, Stomoxys.

130-69

TOXICITY, PICK-UP AND METABOLISM OF P,P'-DDT AND RELATED COMPOUNDS IN CULEX PIPIENS FATIGANS AND AEDES AEGYPTI.

R L Kalra A S Perry J W Miles

*Indian J Exp Biol* 06(1):37-40

Jan 1968 442.8 IN2

Aedes aegypti, Culex pipiens, DDT, Insect metabolism, Toxicology. English abstract

131-69

RESISTANCE TO DDT ISOMERS IN CULEX PIPIENS FATIGANS.

R L Kalra

*Indian J Exp Biol* 5(3):187-188 REF

Jul 1967 442.8 IN2

Culicidae, DDT, Insect protective devices, Insecticide resistant insects, Insecticides. English abstract

132-69

EFFECTS OF FOREST SPRAYING WITH DDT IN NEW BRUNSWICK ON FOOD OF YOUNG ATLANTIC SALMON.

M H A Keenleyside

*J Fish Res Board Can* 24 4), 807-822, MAP REF

Apr 1967 442.9 C16J

Aquatic insects, Chironomidae, Diptera, DDT, Ephemeroptera, Fish, Forests, Petroleum, Plecoptera, Spraying, Streams, Trichoptera, Water pollution.

Abstract included.

133-69

PERSISTENCE OF RESISTANT POPULATIONS AFTER THE RELAXATION OF THE SELECTION PRESSURE.

J Keiding

*World Rev Pest Contr* 6(4,WINTER):115-130

REF

1967 79.8 W89

Arthropoda, Biochemistry, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insecticide resistant insects, Insecticides, Musca domestica.

134-69

INCIDENCE OF BACILLUS POPILLIAE (DUTKY) IN COSTELYTRA ZEALANDICA (WHITE) LARVA.

J M Kelsey

*New Zeal Entomol* 3(5):67-68

Dec 1966 421 N48

Bacillus popilliae, Bacteria, Biochemistry, Costelytra zealandica, DDT, Larvae, Population, Statistical analysis, Superphosphates.

135-69

LABORATORY TESTS OF INSECTICIDES AGAINST EGGS AND LARVAE OF THE CABBAGE LOOPER.

W P Kerr J R Brazzel

*J Sci Food Agr* 12(5):1-226-5

May 1961 382 SO12

Carbaryl, DDT, Endosulfan, Endrin, Toxaphene, Trichoplusia.

136-69

RESEARCH ON BIO-ECOLOGY OF SITONA CRINITUS (HERBST) AND METHOD FOR CHEMICAL CONTROL. (TU)

A U Kilic A Catalpinar N Adiguzel

*Bitki Koruma Bulteni* 8(1):61-73

Mar 1968 464.8 B542

Benzene hexachloride, Chemical control (insects), DDT, Insect biology, Insect ecology, Insect pests, Insecticide application, Sitona, Time, Zoogeography. English summary.

137-69

THE ERADICATION OF GLOSSINA MORITANS SUBMORITANS NEWST. AND GLOSSINA TACHINOIDES WESTW. IN PART OF A RIVER FLOOD PLAIN IN NORTHERN NIGERIA BY CHEMICAL MEANS. PART II.

W W Kirkby P Blasdale

*Bull Entomol Res* 51(2):253-264

Jul 1960 421 B87

Chemical control (insects), DDT, Northern nigeria.

138-69

CHLORINATED HYDROCARBON INSECTICIDE INHIBITION OF COCKROACH AND HONEY BEE ATPASES.

R B Koch L K Cutkomp F M Do

*Life Sci* 8(6,PT 2):289-297 REF

15 Mar 1969 442.8 L62

Apis mellifera, Chlordane, Chlorinated hydrocarbons, Dicofof, DDT, Insect metabolism, Insecticide resistant insects, Insecticides, Lindane, Periplaneta americana, Toxicology.

Specific enzyme inhibitory activities of DDT and its derivatives, dicofof, chlordane and lindane have been studied on Na&-K& ATPase and Mg& ATPase from nerve cord and muscle tissue of the American cockroach and brain from worker honey bees. There were considerable differences in magnitude of inhibition and in the type of ATPase inhibition by the different insecticides acting on the different tissues.

139-69

CO-RESISTANCE AND RESISTANCE INHERITANCE IN A DIELDRIN RESISTANT LABORATORY STOCK OF THE CLOTHES MOTH (TINEOLA BISSELLIELLA (HUM.), LEP.). (GE)

H Kuhne

*Zool Beitr* 13(2-3):397-407 REF

1967 410 Z753

Chlordane, Dieldrin, DDT, Endrin, Inheritance, Insect breeding, Insecticide resistant insects, Laboratory insects, Tineola bisselliella.

140-69

EFFECT OF DDT RESISTANCE ON THE DEVELOPMENT OF MALATHION RESISTANCE IN HOUSE FLIES.

G C LaBrecque H G Wilson

*J Econ Entomol* 53(2):320-321, BIBL.

Apr 1960 421 J822

DDT, Malathion, Musca domestica.

141-69

LABORATORY EVALUATION OF INSECTICIDES AGAINST THE ADULT HORN FLY.

L F Lewis G W Eddy

*J Econ Entomol* 54(2):392-393, 2 REFS., 1 TAB.

Apr 1961 421 J822

DDT, Haematobia, Malathion, Methoxychlor, Toxaphene.

142-69

BIOLOGICAL INTERACTION BETWEEN PLASTICIZERS AND INSECTICIDES.

E P Lichtenstein K R Schulz T W Fuhrmann T T Liang

*J Econ Entomol* 62(4):761-765 REF

15 Aug 1969 421 J822

Biological assay, Biphenyl compounds, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Drosophila melanogaster, Insecticides, Musca domestica, Synergism.

143-69

FATE OF DDT AND TOXAPHENE APPLIED TOPICALLY TO SUSCEPTIBLE AND RESISTANT BOLL WEEVILS.

D A Lindquist J R Brazzel T B Davich

*J Econ Entomol* 54(2):299-300

Apr 1961 421 J822

Anthonomus grandis, DDT, Insecticide application, Insecticide resistant insects, Toxaphene.

144-69

DDT- DEHYDROCHLORINASE.

H Lipke C W Kearns

*Advances Pest Contr Res* 3:253-287, BIBL, 285-287, TABS

1960 421 AD9

DDT, Insecticide resistant insects.

145-69

DDT-DEHYDROCHLORINASE III. SOLUBILIZATION OF INSECTICIDES BY LIPOPROTEIN.

H Lipke C W Kearns

*J Econ Entomol* 53(1):31-35, BIBL, 34-35

Feb 1960 421 J822

DDT, DDT-DEHYDROCHLORINASE, Lipovitellin, Musca domestica, Solubilization technique.

146-69

EVIDENCE FOR THE DDT-INDUCED SYNTHESIS OF MESSENGER RIBONUCLEIC ACID IN TRIATOMA INFESTANS.

S Litvak L Tarrago-Litvak P Pohlete M Agosin

*Compar Biochem Physiol* 26(1):45-56 REF

Jul 1968 444.8 C73

Biochemistry, DDT, Insect metabolism, Insect physiology, Insecticide resistant insects, Ribonucleic acid, Triatoma infestans.

Abstract

147-69

THE BIOLOGY AND CONTROL OF THE CEANOOTHUS STEMI-GALL MOTH, PERIPOCHA CEANOTHIELLA (COSENS).



- N F Lolonis  
*Calif Hort Soc J* 29(3):89-92  
Jul 1968 81 C1293  
Biological control (insects), Ceanothus, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), Diazinon, Dimethoate, DDT, Insect biology, Insecticides, Organophosphorus compounds, Oxydemetonmethyl, Plant pest control.
- 148-69**  
**THE LEATHERJACKET RISK GROWS.**  
E Long  
*Farmers Weekly* 70(5):V-VI  
31 Jan 1969 10 F2226  
Baits, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect behavior, Insect outbreak forecasting, Insect pests, Insect traps, Larvae, Tipulidae, Zoogeography.
- 149-69**  
**JOINT ACTION OF DDT-CONTAINING INSECTICIDE MIXTURES AGAINST DDT-RESISTANT PINK BOLLWORMS.**  
W L Lowry R S Berger  
*J Econ Entomol* 57(1):181-182  
Feb 1964 421 J822  
DDT, Insecticide resistant insects, Pectinophora gossypiella.
- 150-69**  
**BOLLWORM AND TOBACCO BUDWORM RESISTANCE TO SEVERAL INSECTICIDES IN THE LOWER RIO GRANDE VALLEY OF TEXAS.**  
W L Lowry R L McGarr O T Robertson R S Berger H M Graham  
*J Econ Entomol* 58(4):732-734, TABS.  
Aug 1965 421 J822  
DDT, Heliothis virescens, Heliothis zea, Insecticide resistant insects.
- 151-69**  
**RATE OF INCREASE IN RESISTANCE TO DDT IN PINK BOLLWORM ADULTS.**  
W L Lowry M T Ouye R S Berger  
*J Econ Entomol* 58(4):781-782  
Aug 1965 421 J822  
DDT, Insecticide resistant insects, Pectinophora gossypiella.
- 152-69**  
**INVESTIGATIONS OF PINK BOLLWORM RESISTANCE TO DDT IN MEXICO AND THE UNITED STATES.**  
W L Lowry R S Berger  
*J Econ Entomol* 58(3):590-591  
Jun 1965 421 J822  
DDT, Insecticide resistant insects, Mexico, Pectinophora gossypiella, Texas.
- 153-69**  
**DDT-RESISTANT CODLING MOTHS ON PEARS IN CALIFORNIA.**  
H F Madsen L A Falcon  
*J Sci Food Agr* 12(5):1-223-8  
May 1961 382 S012  
Carpocapsa, DDT, Pears.
- 154-69**  
**PROLONGED RESISTANCE IN THE HOUSE FLY AND BED BUG.**  
A Mallis A C Miller  
*J Econ Entomol* 57(4):608-609  
Aug 1964 421 J822  
Cimex lectularius, Insecticide resistant insects, Musca domestica.
- 155-69**  
**RELATION OF DDT-IRRITATION THRESHOLD TO KNOCKDOWN OF THREE SPECIES OF ANOPHELE MOSQUITOES.**  
O Mancera A Barrera  
*J Sci Food Agr* 12(1):1-55-3  
Jan 1961 382 S012  
Culicidae, DDT.
- 156-69**  
**FIELD TESTS OF DICHLORVOS, GENERAL CHEMICAL 4072, HOOKER COMPOUND, AND SYNERGIZED DDT AGAINST MUSCA DOMESTICA.**  
W Mathis H F Schoof  
*J Econ Entomol* 57(2):256-258  
Apr 1964 421 J822  
Dichlorvos, DDT, General Chemical 4072, Hooker Compound, Musca domestica.
- 157-69**  
J W McAllan A W A Brown  
*J Econ Entomol* 53(1):166-167, BIBL.  
Feb 1960 421 J822  
DDT, Endrin, Insecticides, Malathion, Periplaneta, Sodium cyanide, Sodium orthoarsenate, Toxaphene, Transamination.
- 158-69**  
**SOUTHERN TREE CHAPTER BRIEFED ON BORER CONTROL.**  
C McComb  
*Amer Nurseryman J* 129(8):10,85  
15 Apr 1969 80 AM371  
Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, Dimethoate, DDT, Insect pests, Insecticides, Spraying, Trees.
- 159-69**  
**LINKAGE STUDIES OF ALDRIN RESISTANCE IN BLATTELLA GERMANICA (L.).**  
I C C McDonald  
*Diss Abstr Sect B* 29(3):1053B  
Sep 1968 Z5055.U49D53  
Aldrin, Blattella germanica, Blattidae, DDT, Insect morphology, Insect mutation, Insecticides.
- 160-69**  
**THE INFLUENCE OF THREE INSECTICIDES ON PREDATION OF THE PEAR PSYLLA, PSYLLA PYRICOLA.**  
R D McMullen C Jong  
*Can Entomol* 99(12):1292-1297  
Dec 1967 421 C16  
Azinphosmethyl, DDT, Insecticides, Psylla pyricola, Rynania.  
Abstract
- 161-69**  
**THE APPEARANCE OF RESISTANCE IN THE LARVA OF THE COTTON ROOTBORER WEEVIL TO THE ACTION OF CHLORINATED HYDROCARBONS UNDER LABORATORY CONDITIONS. (POR)**  
E J R Mello  
*Biologico* 34(12):257-261  
Dec 1968 442.8 B529  
Aldrin, Carbamates, Carbaryl, Chlordane, Chlorinated hydrocarbons, Curculionidae, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Larvae, Organophosphorus compounds, Parathion.
- 162-69**  
**THE METABOLISM OF C-14 LABELED DDT IN LARVAE, PUPAE, AND ADULTS OF DROSOPHILA MELANOGASTER.**  
D B Menzel S M Smith R Miskus W M Hoskins  
*J Econ Entomol* 54(1):9-12  
Feb 1961 421 J822  
Dicofol, DDT, Drosophila melanogaster, Metabolism, Radioactive tracers.
- 163-69**  
**METABOLISM OF 14C-LABELLED DDT IN THE LARVAE, PUPAE AND ADULTS OF DROSOPHILA MELANOGASTER.**  
D B Menzel S M Smith R Miskus W M Hoskins  
*J Sci Food Agr* 12(6):1-279-2  
Jun 1961 382 S012  
DDT, Drosophila melanogaster, Insect metabolism.
- 164-69**  
**SUSCEPTIBILITY OF MOSQUITOES TO SILICA GEL INSECTICIDES.**  
D W Micks
- J Econ Entomol* 53(5):915-918, 2 REFS.  
Oct 1960 421 J822  
Aedes aegypti, Anopheles, Culex, DDT, Insecticide resistant insects.
- 165-69**  
**THE EFFECTS OF DDT ON OXIDATIVE METABOLISM IN SUSCEPTIBLE AND DDT-RESISTANT AEDES AEGYPTI.**  
D W Micks M R V Murthy  
*J Econ Entomol* 54(3):461-465, 12 REFS., 4 FIGS.  
Jun 1961 421 J822  
Aedes, DDT, Metabolism.
- 166-69**  
**RESISTANCE TO INSECTICIDES OF THREE STRAINS OF MUSCA DOMESTICA L. FROM BRISBANE, QUEENSLAND.**  
L A Millar G H S Hooper  
*Entomol Soc Australia (nsw) J* 8(1):113-115 REF  
30 Jun 1969 423.92 EN84  
Chlorinated hydrocarbons, Diazinon, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Lindane, Malathion, Musca domestica.
- 167-69**  
**SEPARATION AND PURIFICATION OF DDT-DEGRADING ENZYMES FROM THE HUMAN BODY LOUSE.**  
S Miller A S Perry  
*J Agr Food Chem* 12(2):167-169  
Mar 1964 381 J8223  
DDT, Insect metabolism, Pediculus humanus humanus.
- 168-69**  
**ANOPHELES MOUCHETI IN CAMEROON. (FR)**  
J Mouchet J Gariou  
*Entomol Med Cahiers* 4(6):71-81 REF  
1966 SB931.A103  
Anopheles, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Forest insects, Human diseases, Insect vectors, Insecticides, Malaria, Medical entomology. English summary.
- 169-69**  
**USE OF WHO TSETSE FLY KIT FOR DETERMINING RESISTANCE IN THE STABLE FLY.**  
G A Mount  
*J Econ Entomol* 58(4):794-796  
Aug 1965 421 J822  
Glossina, Stomoxys calcitrans.
- 170-69**  
**LOW VOLUME SPRAYING BY AIR TO CONTROL MOSQUITO LARVAE IN CALIFORNIA.**  
T D Mulhern  
*Down Earth* 24(2,FALL):4-6 REF  
1968 381 D75  
Aerial pest control, Chemical control (insects), Culicidae, DDT, Dosage, Economics, Insect vectors, Insecticide application, Larvicides, Spraying.
- 171-69**  
**INTRACELLULAR DISTRIBUTION OF TPN-ISOCRITIC DEHYDROGENASE ACTIVITY IN SUSCEPTIBLE AND INSECTICIDE-RESISTANT STRAINS OF AEDES AEGYPTI.**  
M R V Murthy D W Micks  
*J Econ Entomol* 54(3):513-517, 11 REFS.  
Jun 1961 421 J822  
Acetes, Dehydrogenases, Dieldrin, DDT, Musca domestica.
- 172-69**  
**CONTROLLING FLUCTUATIONS OF DURATION OF DEVELOPMENTAL PERIOD IN DROSOPHILA.**  
H W Neunes  
*Kans Entomol Soc J* 35(2):269-278, 13 REFS., 1 TAB., 2 FIGS.  
Apr 1962 420 K13  
Drosophila melanogaster, Humidity, Insecticide resistant insects, Larvae, Pupae, Temperature.

- 173-69**  
**TRIAL OF CARBOPHOS ON LARVAE OF AEDES AND CULEX MOSQUITOES. (RUS)**  
 A A Odinets T A Oktyabrskaya  
*Med Parazitol Parazitarn Bolezni* 37(5,SEP/OCT):609-613 REF  
 1968 448.8 M469  
 Aedes, Chemical control (insects), Culex pipiens, DDT, Dosage, Malathion, Organophosphorus compounds. English summary.
- 174-69**  
**THE DETERMINATION OF THE INSECTICIDAL ACTIVITY OF AN 8 YEAR OLD SAMPLE OF DDT BY BIOLOGICAL METHOD. (TU)**  
 A N Ozkazane  
*Ankara Univ Vet Fak Dergisi* 15(1):92-108  
 1968 41.9 AN4D  
 Biological assay, Blattella germanica, Chlorinated hydrocarbons, DDT, Insecticides, Musca domestica, Storage. English abstract
- 175-69**  
**BIOLOGY AND CONTROL OF THE SPIT-LEBUG PROSAPIA BICINCTA IN COASTAL BERMUDA GRASS.**  
 B C Pass J K Reed  
*J Econ Entomol* 58(2):275-278, TABS., 8 REFS.  
 Apr 1965 421 J822  
 Azinphosmethyl, Carbaryl, Cynodon dactylon, DDT, Endosulfan, Endrin, Heptachlor, Insect pests, Malathion, Mevinphos, Prosapia.
- 176-69**  
**EVIDENCE OF A NONSPECIFIC TYPE RESISTANCE TO INSECTICIDES BY A RESISTANT STRAIN OF THE TOBACCO BUDWORM.**  
 T L Pate S B Vinson  
*J Econ Entomol* 61(5):1135-1137 REF  
 15 Oct 1968 421 J822  
 Biochemistry, Chemical control (insects), Cuticle, DDT, Dosage, Endrin, Heliothis virescens, Immunity, Injections, Insecticides.
- 177-69**  
**NEW STRATEGY AGAINST THE CODLING MOTH.**  
 C K Peck  
*World Farming* 11(2):6-10  
 Feb 1969 30.08 W89  
 Apples, Azinphosmethyl, Carpocapsa pomonella, Chemical control (insects), Chlorinated hydrocarbons, Cobalt, Diazinon, DDT, Insect pests, Insecticide resistant insects, Insecticides, Isotopes, Organophosphorus compounds, Parathion, Radiation, Sterility.
- 178-69**  
**SOME BIOLOGICAL COMPARISONS OF RESISTANT AND NONRESISTANT STRAINS OF THE GERMAN COCKROACH, BLATTELLA GERMANICA.**  
 B D Perkins Jr J M Grayson  
*J Econ Entomol* 54(4):747-750, 22 REFS.  
 Aug 1961 421 J822  
 Blattella germanica, Chlordane, DDT, Insecticide resistant insects, Insecticide susceptible insects, Lindane.
- 179-69**  
**THE ENZYMATIC IN VITRO DEGRADATION OF DDT BY SUSCEPTIBLE AND DDT - RESISTANT BODY LICE.**  
 A S Perry S Miller A J Buckner  
*J Agr Food Chem* 11(6):457-462, BIBL. 461-462, TABS.  
 Nov 1963 381 J8223  
 DDT, Insect metabolism, Insecticide resistant insects, Pediculus humanus humanus.
- 180-69**  
**NEW HORIZONS IN THE FIGHT AGAINST INSECTS. (FR)**  
 M P Pesson  
*Rev Zool Agr Appl* 00(1-3):1-13  
 1968 410.9 SO12

- Biological control (insects), Chemical control (insects), DDT, Insect control, Insect pests, Insect physiology, Insecticide residues.
- 181-69**  
**PHYSIOLOGICAL AND GENETICAL STUDIES ON RESISTANCE TO DDT SUBSTITUTES IN AEDES AEGYPTI.**  
 K K Pillai A W A Brown  
*J Econ Entomol* 58(2):255-266, BIBL. 265-266, TABS.  
 Apr 1965 421 J822  
 Aedes aegypti, Bis (p-chlorophenyl)-z-nitropropane, 1,1-, Bis(p-chlorophenyl)-2-nitropropane, 1,1-, Dibutyl-p-chlorobenzenesulfonamide, N,N-, DDT, Insect genetics, Insect physiology, Insecticide resistant insects, Malathion.
- 182-69**  
**INSECTICIDE RESISTANCE IN THE HOUSE FLY: DECREASED RATE OF ABSORPTION IS THE MECHANISM OF ACTION OF A GENE THAT ACTS AS AN INTENSIFIER OF RESISTANCE.**  
 F W Plapp R F Hoyer  
*J Econ Entomol* 61(5):1298-1303 REF  
 15 Oct 1968 421 J822  
 Absorption, Biochemistry, Chemical control (insects), Dieldrin, DDT, Genes, Insect genetics, Insecticides, Musca domestica, Parathion.
- 183-69**  
**DIELDRIN AND DDT: EFFECTS ON SPARROW HAWK EGGSHELLS AND REPRODUCTION.**  
 R D Porter S N Wiemeyer  
*Science* 165(3889):199-200 REF  
 11 Jul 1969 470 SCI2  
 Birds, Dieldrin, DDT, Eggs, Pesticides, Reproduction.
- 184-69**  
**ON THE USE OF BACILLUS THURINGIENSIS-INSECTICIDE COMBINATIONS TO CONTROL INSECT PESTS.**  
 W P Pristavko  
 212-214 REF  
 1967 SB932.15  
 Bacillus thuringiensis, Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect pests, Insecticides.
- 185-69**  
**PICK-UP OF INSECTICIDE THROUGH DIFFERENT PAIRS OF HOUSE FLY Tarsi.**  
 S H Quadri M B Naidu  
*Entomol Exp Appl* 10(3):476-484  
 1967 421 EN895  
 DDT, Endrin, Heptachlor, Musca domestica, Toxaphene. German summary  
 Abstract
- 186-69**  
**THE SENSITIVITY OF MUSCA DOMESTICA NEBULO F. AND M. DOMESTICA VICINA MACQ. TO DDT, BHC AND DIELDRIN, AS SHOWN BY DOSAGE-MORTALITY CURVES.**  
 J Rahman N Riaz N H Khan  
*Bull Entomol Res* 55(2):355-365, 5 REFS., 6 TABS.  
 Aug 1964 421 B87  
 Benzene hexachloride, Dieldrin, DDT, Musca domestica.
- 187-69**  
**INHERITANCE OF DDT-RESISTANCE IN MUSCA DOMESTICA NEBULO FABR.**  
 S J Rahman N H Khan  
*Indian J Entomol* 30(1):69-76  
 Mar 1968 420 IN23  
 Chlorinated hydrocarbons, DDT, Inheritance, Insect rearing, Insecticide resistant insects, Musca domestica, Organophosphorus compounds.
- 188-69**  
**THE EFFECTS OF DDT AND SUBLETHAL DOSES OF DICOFOL ON REPRODUCTION OF THE TWO-SPOTTED SPIDER MITE.**  
 S S Rajinder L K Cutkomp

- J Econ Entomol* 59(2):249-253, BIBL. 252-253, TABS.  
 Apr 1966 421 J822  
 Dicofol, DDT, Reproduction, Tetranychus urticae.
- 189-69**  
**CONTRIBUTION TO THE STUDY OF THE MODE OF ACTION OF CERTAIN SYNTHETIC INSECTICIDES, MOST PARTICULARLY OF LINDANE, AND OF THE PHENOMENA OF RESISTANCE TO THESE COMPOUNDS IN MUSCA DOMESTICA L. (FR)**  
 F Ramade  
*Inst Nat Agron Ann (N S)*5:1-266 REF  
 1967 105.3 IN8  
 Carbaryl, DDT, Esters, Insecticide resistant insects, Insecticides, Lindane, Musca domestica, Symptomatology, Toxicity. English summary
- 190-69**  
**THE INFLUENCE OF SITE APPLICATION ON THE TOXICITY OF INSECTICIDES IN RED COTTON BUG, DYSDERUS CINGULATUS, F.**  
 G Reddy M B Naidu  
*Indian J Entomol* 29(4):325-328  
 Dec 1967 420 IN23  
 Dinitrocresol, DDT, Dysdercus cingulatus, Insecticide application, Insecticides, Schistocerca gregaria, Toxicology.
- 191-69**  
**RESPONSE OF THE STRIPED LYNX SPIDER, OXYOPES SALTICUS, TO TWO COMMONLY USED PESTICIDES.**  
 K R Redmond J R Brazzel  
*J Econ Entomol* 61(1):327-328  
 Feb 1968 421 J822  
 DDT, Methyl parathion, Oxyopes salticus, Toxaphene. Toxaphene-DDT mixture used.
- 192-69**  
**CHANGES IN INSECTICIDE SENSITIVITY IN THE BEAN WEEVIL ACANTHOSCELIDES OBTECTUS SAY, BROUGHT ABOUT BY INDUCED PIGMENT FORMATION. (GE)**  
 W Reichmuth  
*Gesunde Pflanzen* 19(10):208-212  
 Oct 1967 464.8 G33  
 Acanthoscelides obtectus, Beans, Chlorinated hydrocarbons, Copper sulfate, DDT, Fertilizers, Insecticide resistant insects, Magnesium sulfate, Molybdenum, Pigments (insect), Potassium, Zinc sulfate.
- 193-69**  
**THE EFFECT OF RESIDUAL DEPOSITS OF INSECTICIDES ON THE SCORPION, CENTRUROIDES VITTATUS.**  
 R L Ridgway T McGregor J F Flanigan  
*J Econ Entomol* 55(6):1012-1013  
 Dec 1962 421 J822  
 Centruroides vittatus, DDT, Insecticide residues, Scorpionida.
- 194-69**  
**DDT SUSCEPTIBILITY OF DROSOPHILA MELANOGASTER IN RELATION TO DIETARY AMINO NITROGEN.**  
 C T Rivera A L Steinhauer  
*J Econ Entomol* 55(3):393-395  
 Jun 1962 421 J822  
 Amino compounds, DDT, Drosophila melanogaster, Insect nutrition, Nitrogen.
- 195-69**  
**ABSORPTION OF DDT AND METABOLISM OF DDT AND RELATED COMPOUNDS BY DDT-RESISTANT CODLING MOTHS.**  
 H A Rose G H S Hooper  
*J Econ Entomol* 62(4):857-861 REF  
 15 Aug 1969 421 J822  
 Carbon isotopes, Chlorinated hydrocarbons, DDT, Insect metabolism, Insecticide resistant insects, Laspeyresia pomonella, Metabolites, Radioactive tracers, TDE.



196-69

**THE SUSCEPTIBILITY TO INSECTICIDES OF CYDIA POMONELLA (LINNAEUS) (LEPIDOPTERA: TORTRICIDAE) FROM QUEENSLAND.**  
H A Rose G H S Hooper

*Entomol Soc Australia (nsw) J* 8(1):79-86 REF  
30 Jun 1969 423.92 EN84

Azinphosmethyl, Biological assay, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insecticide application, Insecticide resistant insects, Insecticides, Laspeyresia pomonella, Organophosphorus compounds.

Populations of *Cydia pomonella* (Linnaeus) from the granite belt area of south-east Queensland were tested to determine their susceptibility to DDT, azinphos-methyl and carbaryl. Resistance to DDT in one strain was demonstrated by the topical application test method. By means of a continuous-exposure toxicological test, which is described, no evidence of resistance to azinphos-methyl or carbaryl was found in any of the populations tested.

197-69

**A GYNANDROMORPH OF THE GERMAN COCKROACH, BLATTELLA GERMANICA.**

M H Ross D G Cochran

*Entomol Soc Amer Ann* 60(4):859-860

17 Jul 1967 420 EN82

*Blattella germanica*, DDT, Gynandromorphism, Insecticide resistant insects.

198-69

**THE GROUP EFFECT IN THE TESTS ON INSECTICIDE RESISTANCE IN AEDES AEGYPTI. (FR)**

J Sautet J Aldigheri M Quilici

*World Health Organ Bull* 38(6):967-970

1968 449.9 W892B

*Aedes aegypti*, Chemical control (insects), DDT, Dosage, Experimental insects, Insecticide resistant insects, Mortality. English summary

199-69

**STUDIES ON FINE-PARTICLE, COARSE-PARTICLE, AND CONCENTRATED AEROSOLS.**

M S Schechter W N Sullivan A H Yeomans

*J Econ Entomol* 53(5):908-914, 19 REFS., 6

TABS.

Oct 1960 421 J822

Allethrin, DDT, Insecticidal aerosols, *Musca domestica*, Particle size determination, Pyrethrum.

200-69

**THE TOXICOLOGICAL ACTION OF THREE ORGANOPHOSPHORUS INSECTICIDES WITH THREE SPECIES OF MOSQUITO LARVAE.**

C H Schmidt D E Weidhaas

*J Econ Entomol* 54(3):583-586, 5 REFS.

Jun 1961 421 J822

*Aedes*, Dieldrin, Dimethoate, DDT, Larvae, Toxicology.

201-69

**INSECTICIDE SUSCEPTIBILITIES OF PHLEBOTOMUS PAPATASI (SCOPOLI) FROM EGYPT AND THE SUDAN.**

M L Schmidt J R Schmidt

*J Med Entomol* 6(1):87-90 REF

30 Jan 1969 421 J828

Chlorinated hydrocarbons, Dieldrin, DDT, Insect physiology, Insecticides, Medical entomology, *Phlebotomus*.

202-69

**ANTIRESTANT DDT CONTINUES TO OFFER SUPERIOR FLY CONTROL.**

G E Schmolesky P H Derse

*Agr Chem* 18(3):24-25, 111

Mar 1963 381 AG8

Chemical control (insects), DDT, Insecticide resistant insects, *Musca domestica*.

203-69

**DIELDRIN RESISTANCE IN LUCILIA SERICATA (MEIG) FROM CO. DUBLIN, EIRE.**

R D Shaw K W Page G G Blackman

*Vet Rec* 82(26):755-757

29 Jun 1968 41.8 V641

Aldrin, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Lindane, *Lucilia cuprina*, *Phaenicia sericata*.

204-69

**MICHIGAN'S PRIORITY WAR ON MOSQUITOES.**

M Shinkle

*Pest Contr* 37(4):15-17

Apr 1969 449.8 EX8

Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, Culicidae, DDT, Insect pests, Insect vectors, Insecticide residues, Insecticides, Legislation.

205-69

**INTERNAL PERFUSION OF CRAYFISH GIANT AXONS: ACTION OF TANNIC ACID, DDT, AND TEA.**

P G Shrager R I Macey A Strickholm

*J Cell Compar Physiol* 74(1):77-90 REF

Aug 1969 444.8 J822

Arthropoda, DDT, Ions, Nervous system, Physiology, Tannins, Tea.

206-69

**STUDIES ON THE SITKA SPRUCE WEEVIL, PISSODES SITCHENSIS, IN BRITISH COLOMBIA.**

G T Silver

*Can Entomol* 100(1):93-110

Jan 1968 421 C16

Chemical control (insects), DDT, Insect behavior, Insect physiology, Metamorphosis, Natural control (insects), Phosphamidon, *Picea sitchensis*, *Pissodes sitchensis*, Spraying.

Abstract: The life history of the Sitka spruce weevil, *Pissodes sitchensis* is described.

207-69

**A METHOD FOR FIELD DETECTION OF HORNFY SUSCEPTIBILITY TO DDT RESIDUES.**

J S Simco

*Entomol Soc J* 35(1):167-170, 1 REF., 1

TAB., 1 FIG.

Jan 1962 420 K13

DDT, Insecticide residues, Insecticide resistant insects, Methodology, *Siphona*, Toxaphene.

208-69

**ACTION OF DDT AT AN INSECT SYNAPSE.**

T Smith Jr

*J Econ Entomol* 53(1):170-171, BIBL.

Feb 1960 421 J822

DDT, Insect genetics, Insects, *Periplaneta*.

209-69

**FIELD TESTS FOR CONTROL OF OVERWINTERED BOLL WEEVILS.**

G L Smith T C Cleveland J C Clark

*J Econ Entomol* 58(2):360-361, 1 REF., 1 TAB.

Apr 1965 421 J822

*Anthonomus grandis*, Azinphosmethyl, Dieldrin, DDT, Endrin, Hibernation, Insect control, Malathion, Methyl parathion, Toxaphene.

210-69

**INVESTIGATIONS OF THE POSSIBILITY OF HOST SPECIFIC STRAINS OF THE BOLLWORM AND TOBACCO BUDWORM IN MISSISSIPPI.**

J W Snow J R Brazzel

*J Econ Entomol* 58(3):525-526

Jun 1965 421 J822

*Heliothis virescens*, *Heliothis zea*, Mississippi, Plant hosts.

211-69

**A COMPARISON OF CHEMORECEPTOR AND WHOLE-FLY RESPONSES TO DDT AND PARATHION.**

S A Soliman L K Cutcomp

*J Econ Entomol* 56(4):492-494

Aug 1963 421 J822

Chemoreceptors, DDT, *Musca domestica*, Parathion.

212-69

**EFFECT OF INSECTICIDE POISONING ON CHEMORECEPTION IN THE HOUSE FLY, MUSCA DOMESTICA VICINAL. (DIPTERA: MUSCIDAE).**

S A Soliman

*Soc Entomol Egypte Bull* 49:243-257

1966 420 EG9

Chemotropism, DDT, *Musca domestica*, Parathion.

213-69

**SUSCEPTIBILITY OF AN EYE GNAT, HIPPELATES PUSIO, TO RESIDUAL INSECTICIDES.**

A Spielman

*J Econ Entomol* 54(1):130-131

Feb 1961 421 J822

Chloropidae, Dieldrin, DDT, Eye gnat, *Hippelates*, Lindane, Malathion.

214-69

**APPARENT DDT TOLERANCE IN AN AQUATIC INSECT DISPROVED BY TEST.**

J B Sprague

*Can Entomol* 100(3):279-284 REF

15 Mar 1968 421 C16

Aquatic insects, DDT, Ephemeroptera, Insecticide resistant insects, Plecoptera.

215-69

**EFFECT OF TEMPERATURE AND HUMIDITY ON THE SUSCEPTIBILITY OF BEDBUGS TO INSECTICIDES.**

C P Srivastava S L Perti

*Pesticides* 1(8):25-26 REF

Apr 1968 SB951.P43

Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, *Cimex hemipterus*, Diazinon, Dieldrin, DDT, Humidity, Insecticide resistant insects, Lindane, Malathion, Organophosphorus compounds, Temperature.

216-69

**STUDIES ON THE METABOLISM OF DDT IN THE DESERT LOCUST BY PAPER CHROMATOGRAPHY.**

P D Srivastava A Mansingh

*Indian J Entomol* 28(4):465-467 REF

Dec 1966 420 IN23

Chromatography, DDT, Insect metabolism, *Schistocerca gregaria*.

217-69

**EFFECTS ON RESISTANCE OF EXPOSURE OF HOUSEFLIES TO SUB-LETHAL AND PARTIALLY LETHAL DOSES OF DDT.**

S C Srivastava B C Fine

*Indian J Entomol* 1.(2):164-169 REF

Jun 1967 420 IN23

DDT, Heredity, Insecticide resistant insects, Mortality, *Musca domestica*, *Risella* oil.

Abstract

218-69

**MICRONISED INSECTICIDAL DUSTS FOR AIRCRAFT DISINSECTISATION.**

W N Sullivan S O Hill C H Gaddis R D Chisholm V A Johnson

*J Sci Food Agr* 15(9):11-168-1

Sep 1964 382 SO12

Aircraft disinfection, Carbaryl, DDT, Dusting, *Popillia*.

219-69

**SOME PHYSIOLOGICAL EFFECTS OF SUBLETHAL DOSES OF DDT ON FLOUR BEETLES.**

M Taher

*Diss Abstr Sect B* 58(12,PT.1):5067B

Jun 1968 Z5055.U49D53

Chlorinated hydrocarbons, DDT, Dosage, Excreta, Fertility, Insect physiology, Insecticides, Lindane, Malathion, Mortality, Oviposition, Quinones, Reproduction, Sodium fluoride, Sterility, *Tribolium confusum*.

**220-69**  
**A METHOD FOR SELECTION FOR DDT-SUSCEPTIBILITY.**

A S Tahori  
*J Econ Entomol* 54(3):611, 3 REFS.  
Jun 1961 421 J822

DDT, Insecticide susceptible insects, *Musca domestica*.

**221-69**  
**VARIABILITY IN INSECTICIDE TOLERANCE OF EIGHTEEN HONEY-BEE COLONIES.**

A S Tahori Z Sobel M Soller  
*Entomol Exp Appl* 12(1):85-98 REF  
1969 421 EN895

*Apis mellifera*, Chlorinated hydrocarbons, DDT, Endrin, Insecticides, Organophosphorus compounds, Ronnel, Toxicology, Trichlorfon.

**222-69**  
**CONTROL OF GLOSSINA MORSITANS SUBMORSITANS NEWST. IN NORTHERN NIGERIA BY RIVERINE SPRAYING WITH MOTORIZED SPRAYERS.**

D W Tarry  
*Ann Trop Med Parasitol* 61(4):465-471, MAP REF  
Dec 1967 448.9 L75A

Chemical control (insects), Dieldrin, DDT, Equipment, *Glossina morsitans submorsitans*, Insecticidal aerosols, Insecticide application, Spraying.

**223-69**  
**THE PROBLEM OF THE UTILIZATION OF ENTOMOPATHOGENIC MICROORGANISMS IN COMBINATION WITH INSECTICIDES. (FR)**

N A Telenga  
*Entomophaga Mem Hors Ser* (2):531-544 REF  
1964 421 EN835M

DDT, Entomogenous fungi, Hydrogen-ion concentration, Insect pests, Insecticides, Integrated control (insects), Microorganisms, Mortality, Toxins. English summary.

**224-69**  
**INSECTICIDE-CYTOPLASMIC INTERACTIONS IN INSECTS AND VERTEBRATES.**

L C Terriere  
*Annu Rev Entomol* 13:75-98 REF  
1968 421 AN72

Benzene hexachloride, Biochemistry, Chlorinated hydrocarbons, Cytoplasm, DDT, Insecticides, Microsomes, Organophosphorus compounds, Pyrethrum, Vertebrates.

**225-69**  
**A COMPARISON OF THE SUSCEPTIBILITY OF THE FACE FLY, MUSCA AUTUMNALIS, AND THE HOUSE FLY, M. DOMESTICA, TO INSECTICIDES IN THE LABORATORY.**

R E Treece  
*J Econ Entomol* 54(4):803-805, 1 REF.  
Aug 1961 421 J822

DDT, *Musca*, *Musca domestica*, Parathion.

**226-69**  
**COMPARISON TESTS BETWEEN VARIOUS ACTIVE INGREDIENTS EMPLOYED DURING 1966 IN THE CONTROL OF THE FLEA BEETLE OF THE BEET (CHAETOCNEMA TIBIALIS). (IT)**

V Tullio D Ponis  
*Giornate Fitopatol* 339-344  
26 Mar 1967 SB599.G5

Beets, *Chaetocnema tibialis*, Chemical control (insects), Chlorinated hydrocarbons, Diazinon, DDT, Heptachlor, Organophosphorus compounds. The experimental product DC 70 proved effective. Other less effective insecticides were also tested.

**227-69**  
**FEWER PESTICIDES- MORE CONTROL.**

R Van Den Bosch  
*Science* 164(3879):497  
02 May 1969 470 SCI2  
Chemical control (pests), Chlorinated hydrocarbons, DDT, Ecology, Pesticides, Regulations.

**228-69**  
**EUROPEAN PINE SHOOT MOTH.**

L M Vasvary  
*Rutgers State Univ Ext Leaflet* (129-B):2P  
1969 275.29 N46L

Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect identification, Insect pests, Insecticide application, Olethreutidae, *Rhyacionia buoliana*.

**229-69**  
**EFFECT OF DDT ON INCORPORATION OF C14-LABELED GLUCOSE INTO PROTEIN AND SOLUBLE INTERMEDIATES OF NYMPHAL TRIATOMA INFESTANS.**

E del Villar D Mosnaim  
*Exp Parasitol* 21(2):186-194 REF  
Oct 1967 436.8 EX7

Carbohydrates, DDT, Insect morphology, Insect physiology, Insecticide resistant insects, Larvae, *Triatoma*. English abstract

**230-69**  
**INSECTICIDE STUDIES OF THE MAIZE STALK BORER, BUSSEOLA FUSCA (FULLER), IN EAST AFRICA.**

P T Walker  
*Bull Entomol Res* 51(2):321-351  
Jul 1960 421 B87

*Busseola fusca*, Chemical control (insects), Corn, East africa, Endrin, Insecticides, Isodrin.

**231-69**  
**SUSCEPTIBILITY OF AN ALFALFA LEAF-CUTTING BEE TO RESIDUES OF INSECTICIDES ON FOLIAGE.**

G D Waller  
*J Econ Entomol* 62(1):189-192  
17 Feb 1969 421 J822

Alfalfa, Carbaryl, Chemical control (insects), DDT, Insecticide residues, Leaves, Megachile rotundata, Mortality, Susceptibility.

**232-69**  
**AN AUTORADIOGRAPHIC STUDY OF INVERTEBRATE UPTAKE OF DDT-CL36.**

E J Webster  
*Ohio J Sci* 67(5):300-307  
Sep 1967 410 OH3

Aquatic animals, Autoradiography, Chlorinated hydrocarbons, Chlorine, DDT, Drying, Invertebrates, Reproductive organs, Tissues.

**233-69**  
**RELATIVE SUSCEPTIBILITY OF SALT-MARSH MOSQUITOES FROM GEORGIA AND FLORIDA TO INSECTICIDES.**

D E Weidhaas H R Ford  
*Fla Entomol* 42(3):109-111, 4 REFS., 2 TABS.  
Sep 1959 420 F662  
Benzene hexachloride, Culicidae, DDT, Georgia, Insecticide resistant insects, Florida.

**234-69**  
**TOXICOLOGICAL ACTION OF DDT ON THREE SPECIES OF MOSQUITO LARVAE.**

D E Weidhaas C H Schmidt  
*J Econ Entomol* 53(1):106-110, BIBL. 109-110  
Feb 1960 421 J822  
*Aedes*, *Anopheles*, Culicidae, DDT, Larvae, Toxicology.

**235-69**  
**EFFECTS OF HETEROGENEOUS DISTRIBUTION AND CODISTILLATION ON THE RESULTS OF TESTS WITH DDT AGAINST MOSQUITO LARVAE.**

D E Weidhaas C H Schmidt M C Bowman  
*J Econ Entomol* 53(1):121-125, BIBL. 124-125, TABS.  
Feb 1960 421 J822  
Culicidae, Dieldrin, Distillation, DDT, Larvae, Lindane, Malathion, Mortality, Parathion.

**236-69**  
**THE BROWN-BANDED COCKROACH IN HAMBURG. (GE)**

H Weidner

*Prakt Schadlingsbekämpfer* 20(1):1-3 REF  
Jan 1968 421 P882

Aldrin, Blattidae, Chemical control (insects), Chlordane, DDT, Heptachlor, Insect behavior, Insect identification, Insect names, Lindane, *Supella supellectilium*, Zoogeography.

**237-69**  
**EFFECTIVENESS OF WARF ANTIRESTANT AS AN ADDITIVE TO DDT FOR CONTROL OF RESISTANT HOUSE FLIES.**

B H Wilson  
*J Econ Entomol* 55(5):792-793  
Oct 1962 421 J822

DDT, Insecticide resistant insects, *Musca domestica*, Warf antiresistant.

**238-69**  
**TOXICITY OF SURFACTANTS AND SURFACTANT-INSECTICIDE COMBINATIONS TO THE BOLLWORM, TOBACCO BUDWORM, AND PINK BOLLWORM.**

D A Wolfenbarger M J Lukefahr W L Lowry  
*J Econ Entomol* 60 (4):902-904  
15 Aug 1967 421 J822

Carbaryl, Chemical control (insects), DDT, *Heliothis virescens*, *Heliothis zea*, Insecticides, *Pectinophora gossypiella*, Surface-active agents.

Abstract

**239-69**  
**OVIPOSITION IN DDT RESISTANT AND SUSCEPTIBLE STRAINS OF AEDES AEGYPTI (L.) IN RELATION TO LIGHT PREFERENCE.**

R J Wood  
*Bull Entomol Res* 52(3):541-560, BIBL. 558-560, TABS.  
Oct 1961 421 B87  
*Aedes aegypti*, DDT, Lighting, Oviposition.

**240-69**  
**SUSCEPTIBILITY OF MANSONIA MOSQUITOES TO CERTAIN INSECTICIDES IN THAILAND.**

M Yasuno Y Purivethaya V Kerdpibule C Harinasuta  
*Jap J Exp Med* 37(6):547-558 REF  
Dec 1967 448.8 J272  
Culicidae, Dieldrin, DDT, Insecticide resistant insects, Insecticides, Larvae, Malathion.

**241-69**  
**DIELDRIN AND DDT RESISTANCE OF CULEX PIPIENS FATIGANS IN THAILAND.**

M Yasuno Y Purivethaya C Harinasuta  
*Jap J Exp Med* 37(6):535-546 REF  
Dec 1967 448.8 J272  
*Culex pipiens quinquefasciatus*, Dieldrin, DDT, Insecticide resistant insects.

**242-69**  
**THE SUSCEPTIBILITY OF VARIOUS SPECIES OF MOSQUITOES TO DDT AND DIELDRIN IN THAILAND.**

M Yasuno Y Kerdpibule  
*Jap J Exp Med* 37(6):563-579  
Dec 1967 448.8 J272  
Culicidae, Dieldrin, DDT, Insecticide resistant insects.

GENETICS

**243-69**  
**PERITROPHIC MEMBRANE AS A VEHICLE FOR DDT AND DDE EXCRETION IN AEDES AEGYPTI LARVAE.**

Z H Abedi A W A Brown  
*Entomol Soc Amer Ann* 54(4):539-542  
Jul 1961 420 EN82  
*Aedes aegypti*, DDT, Insecticide resistant insects, Larvae, Peritrophic membrane.

**244-69**  
**GENETICS OF NATURAL POPULATIONS. XXXIX. A TEST OF THE POSSIBLE IN-**



# **FLUENCE OF TWO INSECTICIDES ON THE CHROMOSOMAL POLYMORPHISM IN DROSOPHILA PSEUDOBBSCURA.**

W W Anderson C Oshima T Watanabe T Dobzhansky O Pavlovsky  
*Genetics* 58(3):423-434 REF  
Mar 1968 442.8 G28

Chromosomes, Dieldrin, DDT, *Drosophila pseudoobscura*, Insect control, Insect genetics, Polymorphism, Population.

245-69

# **INSECTICIDE-RESISTANCE IN CULEX PIPIENS FATIGANS.**

J R Busvine

*World Health Organ Bull* 37(2):287-292 REF  
1967 449.9 W892B

Chemical control (insects), Chromosomes, *Culex pipiens molestus*, *Culex pipiens pipiens*, *Culex pipiens quinquefasciatus*, Dieldrin, DDT, Genes, Insect genetics, Insecticide resistant insects. Summary in French

246-69

# **ON THE DETERMINATION OF INSECT AND MITE RESISTANCE TO PESTICIDES. THE INFLUENCE OF THESE PRODUCTS IN SUBLETHAL DOSES ON ANIMALS AND IN THE TROPHIC EFFECT FOLLOWING BIOCHEMICAL REPERCUSSIONS ON PLANTS. (FR)**

F Chaboussou

*Rev Zool Agr Appl* 67(10-12, 4TH TRIMESTER):105-138 REF  
1968 410.9 SO12

Chlorinated hydrocarbons, DDT, Insect genetics, Insect nutrition, Insecticide resistant insects, Lindane, Organophosphorus compounds, Parathion, Plants, Population.

247-69

# **WARF ANTI-RESISTANT: DDT SELECTION AND HOUSE FLY CROSSRESISTANCE.**

A J Forgash

*J Econ Entomol* 60(6):1750-1751  
Dec 1967 421 J822

Biological assay, Diazinon, Dimetilan, DDT, Heredity, Insect genetics, Insecticide resistant insects, Insecticides, *Musca domestica*, Ronnel, Warf antiresistant.

248-69

# **GENETIC STUDIES ON INSECTICIDE RESISTANCE.**

G P Georgioui

*Advances Pest Contr Res* 6:171-230, BIBL. 224-230, TABS.

10 Nov 1965 421 AD9

DDT, Insect genetics, Insecticide resistant insects.

249-69

# **DEVELOPMENT OF DDT RESISTANCE IN CERTAIN MAYFLIES IN NEW BRUNSWICK.**

C D Grant A W A Brown

*Can Entomol* 99(10):1040-1050  
Oct 1967 421 C16

Canada, DDT, Ephemeroptera, Insecticide resistant insects.

250-69

# **INSECTICIDE RESISTANCE IN THE HOME OF CULEX PIPIENS FATIGANS WIEDEMANN. (FR)**

J Hamon J Mouchet

*World Health Organ Bull* 37(2):277-286 REF  
1967 449.9 W892B

Chemical control (insects), *Culex pipiens quinquefasciatus*, Dieldrin, DDT, Insect genetics, Insect physiology, Insecticide resistant insects, Larvae. Summary in English

251-69

# **SOME NEW MUTANTS AND LINKAGE GROUPS OF THE HOUSE FLY.**

T Hiroyoshi

*J Econ Entomol* 53(6):985-990, 8 REFS., 3 TABS.

Dec 1960 421 J822

Color, DDT, Eyes, Insect genetics, Insecticide resistant insects, *Musca domestica*, Wings (insects).

252-69

# **A GROSS ANALYSIS OF TWO DDT-RESISTANT HOUSE FLY STRAINS.**

R F Hoyer F W Plapp Jr

*J Econ Entomol* 59(3):495-501

Jun 1966 421 J822

DDT, *Musca domestica*.

253-69

# **STUDIES ON THE MECHANISM OF DDT-RESISTANCE IN CULEX PIPIENS FATIGANS.**

R L Kalra A S Perry J W Miles

*World Health Organ Bull* 37(4):651-656 REF

1967 449.9 W892B

*Aedes aegypti*, *Culex pipiens quinquefasciatus*, DDT, Insect biology, Insect genetics, Insecticide resistant insects. French summary

254-69

# **DDT-DEHYDROCHLORINASE ACTIVITY IN HOUSE FLY STRAINS RESISTANT TO VARIOUS GROUPS OF INSECTICIDES.**

M A Q Khan L C Terriere

*J Econ Entomol* 61(3):732-736 REF

Jun 1968 421 J822

Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Chromosomes, DDT, DDT-DEHYDROCHLORINASE, Enzymes, Genes, Insect biochemistry, Insect genetics, Insect metabolism, Insecticide resistant insects, Insecticides, Isopropyl-3-methylpyrazol-5-yl dimethylcarbamate, 1-, Metabolites, Microsomes, *Musca domestica*, Naphthalene, Organophosphorus compounds.

255-69

# **CARBAMATE AND PHOSPHATE RESISTANCE IN ADULT GRNARY WEEVILS.**

V Kumar F O Morrison

*J Econ Entomol* 60(5):1430-1434

Oct 1967 421 J822

DDT, Fenthion, Insecticide resistant insects, *Sitophilus*, Zectran.

256-69

# **GENETIC FACTOR CONTROLLING COLOUR AND ITS ASSOCIATION WITH DDT SENSITIVITY IN THE CABBAGE LOOPER.**

F L McEwen C M Splittstoesser

*J Sci Food Agr* 15(9):111-131-7

Sep 1964 382 SO12

Color, DDT, Insect genetics, Insecticide resistant insects, *Trichoplusia*.

257-69

# **LINKAGE OF GOLD, ITS RECESSIVE LETHALITY AND SEX-RELATED VARIATION IN CROSSING-OVER IN CULEX PIPIENS (DIPTERA: CULICIDAE).**

G A H McClelland T W Smithson

*Can J Genet Cytol* 10(2):374-384 REF

Jun 1968 443.8 C16

Breeding, Chromosomes, *Culex pipiens*, DDT, Genes, Immunity, Insect genetics, Lethal factor, Sex.

258-69

# **A GENETIC FACTOR CONTROLLING COLOR AND ITS ASSOCIATION WITH DDT SENSITIVITY IN THE CABBAGE LOOPER.**

F L McEwen C M Splittstoesser

*J Econ Entomol* 57(2):197-199, TABS.

Apr 1964 421 J822

Color, DDT, Insect genetics, *Trichoplusia ni*.

259-69

# **GENETICS OF CYCLODIENE-INSECTICIDE RESISTANCE IN THE SEED-CORN MAGGOT.**

D G R McLeod C R Harris G R Driscoll

*J Econ Entomol* 62(2):427-432 REF

15 Apr 1969 421 J822

Aldrin, Cycloidiene, Diazinon, DDT, Dosage, *Hyalemya platura*, Insect genetics, Insecticide resistant insects.

260-69

# **TWO TYPES OF SESAMEX-SUPPRESSIBLE RESISTANCE IN THE HOUSEFLY.**

F J Oppenoorth

*Entomol Exp Appl* 10(1):75-86 REF

1967 421 EN895

Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Insecticide resistant insects, *Musca domestica*, Sesamex.

261-69

# **POSSIBLE PLEIOTROPISM OF A GENE CONFERRING RESISTANCE TO DDT, DDT ANALOGS, AND PYRETHRINS IN THE HOUSE FLY AND CULEX TARSALIS.**

F W Plapp R F Hoyer

*J Econ Entomol* 61(3):761-765 REF

Jun 1968 421 J822

Chlorinated hydrocarbons, Chromosomes, *Culex tarsalis*, DDT, Genes, Insect genetics, Insect physiology, Insecticide resistant insects, *Musca domestica*, Pyrethrum.

262-69

# **A MORPHOMETRIC ANALYSIS OF STRAINS OF DROSOPHILA MELANOGASTER DIFFERING IN DDT-RESISTANCE.**

R R Sokal

*Kans Entomol Soc J* 32(4):155-172, 17 REFS., 5 TABS.

Oct 1959 420 K13

DDT, *Drosophila melanogaster*, Insect genetics, Insecticide resistant insects.

263-69

# **PUPATION SITE DIFFERENCES IN DROSOPHILA MELANOGASTER.**

R R Sokal

*Kans Univ Sci Bull* 46 19), 697-715 REF

02 Dec 1966 500 K1325

DDT, *Drosophila melanogaster*.

264-69

# **A PRELIMINARY REPORT ON MUTATIONS IN THE HOUSE FLY.**

R L Sullivan T Hiroyoshi

*J Econ Entomol* 53(2):213-215, BIBL.

Apr 1960 421 J822

DDT, *Drosophila*, Insect mutation, *Musca domestica*.

265-69

# **GENETICAL LINKAGE RELATIONSHIPS OF DDT-RESISTANCE AND DIELDRIN-RESISTANCE IN CULEX PIPIENS FATIGANS WIEDEMANN.**

T Tadano A W A Brown

*World Health Organ Bull* 36(1):101-111 REF

1967 449.9 W892B

Benzene hexachloride, Chromosomes, *Culex pipiens quinquefasciatus*, Dieldrin, DDT, Genes, Insect genetics, Insecticide resistant insects. French summary

Abstract. DDT - resistance due to a single principal gene. dieldrin - resistance is separated on to chromosome 3.

266-69

# **INHERITANCE OF DDT RESISTANCE IN CULEX PIPIENS FATIGANS WIEDEMANN.**

V Thomas

*J Econ Entomol* 59(4):779-786

Aug 1966 421 J822

*Culex pipiens quinquefasciatus*, DDT, Heredity, Insecticide resistant insects.

267-69

# **STUDIES ON THE DEVELOPMENT TO DDT AND MALATHION IN HOUSE FLIES.**

H G Wilson M C Bowman J B Gahan

*Fla Entomol* 42(2):69-71, 5 REFS., 1 TAB.

Jun 1959 420 F662

DDT, Insecticide resistant insects, Malathion, *Musca domestica*.

268-69

**HETEROGENEITY IN THE TRINIDAD DDT-RESISTANT STRAIN AND THE QS SUSCEPTIBLE STRAIN OF Aedes Aegypti L. THE ISOLATION OF HIGHLY RESISTANT AND HIGHLY SUSCEPTIBLE SUBSTRAINS.**

R J Wood

*World Health Organ Bull* 39(4):639-645 REF

1968 449.9 W892B

*Aedes aegypti*, DDT, Insect genetics, Insecticide resistant insects. French summary.

## MEDICAL ENTOMOLOGY

269-69

**THE SUSCEPTIBILITY OF Culex pipiens molestus FORSKAL IN ISRAEL TO SEVERAL INSECTICIDES IN 1958-1960 AND IN 1965.**

A Barkai Z Saliternik P Rosen

*Mosquito News* 27(2):191-198 REF

Jun 1967 421 M85

Chemical control (insects), *Culex*, Diazinon, Dieldrin, DDT, Fenthion, Insecticide resistant insects, Lindane, Malathion.

Abstract: During 1958-1960, larval populations were tested for their susceptibility to DDT, dieldrin, lindane and malathion, whereas adult female populations were tested only for DDT resistance. The 1965 survey included additional tests of larval populations with diazinon and fenthion and of adult female populations with dieldrin and malathion.

270-69

**A FIELD EVALUATION OF ABATE BRIQUETTES IN WOODLAND POOLS.**

W W Barnes A B Webb

*Mosquito News* 28(3):458-461

Sep 1968 421 M85

Abate, *Aedes canadensis*, Aquatic insects, Chemical control (insects), DDT, Lindane, Ponds, Seasonal variation.

271-69

**REVIEW OF CLASSICAL MALARIA CONTROL MEASURES. (SP)**

G H Bradley

*Ofic Sanit Panamer Bol* 66(3):187-199 MAP REF

Mar 1969 449.9 P192B

*Anopheles freeborni*, *Anopheles quadrimaculatus*, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect traps, Insect vectors, Malaria, Medical entomology, Pyrethrum, Zoogeography. English, Portuguese and French summaries.

272-69

**Aedes Aegypti IN THE WESTERN PACIFIC REGION.**

C Y Chow

*World Health Organ Bull* 36(4):544-546

1967 449.9 W892B

*Aedes aegypti*, Chemical control (insects), Dieldrin, DDT, Insecticide resistant insects, Pacific region, Zoogeography.

273-69

**PRACTICAL IMPORTANCE OF INSECTICIDE RESISTANCE FOR MALARIA ERADICATION IN TROPICAL AFRICA. (FR)**

J Coz J Hamon

*Entomol Med Cahiers* (1):27-37 MAP REF

Dec 1963 SB931.A103

*Anopheles*, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Human diseases, Insect vectors, Insecticide resistant insects, Lindane, Malaria, Medical entomology. English and Spanish summaries.

274-69

**THE SIMULIUM CONTROL SCHEME AT ABUJA, NORTHERN NIGERIA, AND ITS EFFECT ON THE PREVALENCE OF ONCHOCERCIASIS IN THE AREA.**

J B Davies

*World Health Organ Bull* 39(2):187-207 MAP

REF

1968 449.9 W892B

Blindness, Chemical control (insects), DDT, Human diseases, Insect vectors, Larvicides, Onchocerciasis, *Simulium damnosum*, Streams. French summary.

275-69

**RESULTS OF TESTS OF SENSITIVITY TO INSECTICIDES OF ANOPHELES ADULTS IN RUMANIA. (FR)**

M Duport

*World Health Organ WHO/VECT Contr* 185.65, 5P

1965 423.92 W89

*Anopheles maculipennis*, Chemical control (insects), Dieldrin, DDT, Fenthion, Insecticide resistant insects, Malathion. English summary.

276-69

**METHYLENEDIOXYPHENYL DERIVATIVES AS SYNERGISTS FOR CARBAMATE INSECTICIDES ON SUSCEPTIBLE, DDT-, AND PARATHION-RESISTANT HOUSE-FLIES.**

M E Eldefrawi R Miskus V Sutchter

*J Econ Entomol* 53(2):231-234, BIBL., TABS.

Apr 1960 421 J822

Carbaryl, DDT, Insecticide resistant insects, *Musca domestica*, Parathion.

277-69

**RESPONSES OF Aedes Aegypti (L) FROM ALABAMA, GEORGIA AND SOUTH CAROLINA TO DDT, DIELDRIN, AND MALATHION.**

A D Flynn H F Schoof

*Mosquito News* 27(4):509-512

Dec 1967 421 M85

*Aedes aegypti*, Chemical control (insects), Culicidae, Dieldrin, DDT, Insecticides, Malathion.

278-69

**RESPONSES OF Aedes Aegypti (L) FROM ALABAMA, GEORGIA AND SOUTH CAROLINA TO DDT, DIELDRIN, AND MALATHION.**

A D Flynn H F Schoof

*Mosquito News* 27(4):509-512 REF

Dec 1967 421 M85

*Aedes aegypti*, Chemical control (insects), Dieldrin, DDT, Insecticide resistant insects, Malathion.

Abstract: Of the strains from Alabama, two were resistant to DDT (adults), one slightly resistant to dieldrin (adults), and none resistant to malathion. From Georgia, all strains of the adult stage were resistant to DDT, one strain (Albany, adult and larval stages) to dieldrin, and none to malathion. Strains from South Carolina were susceptible to all of these toxicants.

279-69

**ERADICATION OF MALARIA AND MOSQUITO CONTROL IN ITALY.**

F Galbiati F Lucchi

*Agr Vet Chem* 8(2):33-36

Mar 1967 382 AG82

Culicidae, DDT, Insect vectors, Malaria, Malaria control.

Abstract: Adulticide was found to be the most effective eradication treatment.

280-69

**IMPORTANCE OF PESTICIDES IN PREVENTIVE MEDICINE.**

P C C Garnham

*Roy Soc Proc Ser B, Biol Sci* 167(1007):134-140

REF

21 Feb 1967 501 L84B

Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Human diseases, Insect vectors, Insecticides, Lindane, Preventive medicine.

281-69

**TECHNIQUE OF CONTINUOUS EXPOSURE FOR THE DETERMINATION OF INSECTICIDE RESISTANCE IN MOSQUITO LARVAE.**

B M Gancey C S Lofgren

*Fla Anti-mosquito Ass Rep* 38:29-33

07 May 1967 420 F663

*Aedes taeniorhynchus*, *Anopheles quadrimaculatus*, DDT, Insecticide application, Insecticide resistant insects, Malathion.

282-69

**PROSPECTS FOR THE ERADICATION OF MALARIA IN ALGERIA. (FR)**

Y Guy R Bassabi

*Inst Pasteur Algerie Arch* 45:72-88

1967 448.3 IN7A

Chemical control (insects), DDT, Insect vectors, Malaria, Plasmodium, Sanitation, Spraying, Zoogeography.

283-69

**SUMMARY OF RECENT ABSTRACTS. VI. PLAGUE.**

R J Henderson

*Trop Dis Bull* 64(7):697-704

Jul 1967 448.8 T752

Animal diseases, Dieldrin, DDT, Epidemiology, Human diseases, Immunity, Insect vectors, Plague, Rodents. Abstracts appear in the Tropical Disease Bulletin, 1966, v.63.

284-69

**THE STATUS OF INSECTICIDE RESISTANCE IN POPULATIONS OF Culex pipiens fatigans WIEDEMANN (DIPTERA: CULICIDAE) FROM QUEENSLAND.**

G H S Hooper

*Entomol Soc Queensland J* 6(2):141-143

31 Dec 1967 420 EN823

Dieldrin, DDT, Insecticide resistant insects, Lindane, Organophosphorus compounds.

Abstract

285-69

**THE EFFECTIVENESS OF CHEMICALLY TREATED SCREENS IN KILLING ANNOYING PUNKIES, CULICOIDES OBSOLETUS.**

H Jamnback

*J Econ Entomol* 54(3):578-580, 3 REFS.

Jun 1961 421 J822

Culicoides, DDT, Malathion, Screens.

286-69

**SELECTIVE CONTROL OF SIMULIUM DAMNOSUM AND RIVER MANAGEMENT.**

W E Kershaw

*Entomologist (london)* 102(1272):98

May 1969 421 EN8

Chemical control (insects), DDT, Human diseases, Insect vectors, Nematodes, *Onchocerca volvulus*, *Simulium damnosum*.

287-69

**RESISTANCE OF Aedes TAENIORHYNCHUS (WIEDEMANN) TO MALATHION.**

C S Lofgren H R Ford B M Gancey G A Mount

*Fla Anti-mosquito Ass Rep* 38:53-58

07 May 1967 420 F663

*Aedes taeniorhynchus*, DDT, Fenthion, Insecticide resistant insects, Malathion, Naled.

288-69

**MALARIA AND VICTORY IN VIETNAM.**

W Modell

*Science* 162(3860):1346-1352 REF

20 Dec 1968 470 SC12

*Anopheles quadrimaculatus*, Chemical control (insects), Chlorinated hydrocarbons, DDT, Drug therapy, Human diseases, Insect vectors, Insecticides, Malaria, Pyrethrum. Many drugs were mentioned.

289-69

**TECHNICAL PROBLEMS OF MALARIA ERADICATION IN AFRICA. (FR)**

J Mouchet J Hamon

*Entomol Med Cahiers* (1):39-48 REF

Dec 1963 SB931.A103

*Anopheles funestus*, *Anopheles gambiae*, Chlorinated hydrocarbons, Disease transmission, DDT, Eradication, Human diseases, Insect vectors, Insecticide resistant insects, Malaria, Medical entomology. English and Spanish summaries.



290-69

**ENTOMOLOGICAL FACTORS IN PERSISTING TRANSMISSION OF MALARIA IN ERADICATION PROGRAMS. (FR)**

J Mouchet

*Entomol Med Cahiers* (1):17-26 REF

Dec 1963 SB931.A103

Anopheles, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, Disease transmission, DDT, Eradication, Human diseases, Insect vectors, Insecticide resistant insects, Insecticides, Malaria, Medical entomology. English and Spanish summaries.

291-69

**CONTROL OF HIPPELATES GNATS WITH SOIL TREATMENTS USING OR-GANOCHLORINE INSECTICIDES.**

M S Mulla

*J Econ Entomol* 54(4):636-642, 8 REFS.

Aug 1961 421 J822

Aldrin, Citrus, Dieldrin, DDT, Endrin, Hippelates, Soil treatment, Toxaphene.

292-69

**SOIL TREATMENTS WITH INSECTICIDES FOR CONTROL OF THE EYE GNATS HIPPELATES COLLUSOR AND H. HERMSI.**

M S Mulla M M Barnes M J Garber

*J Econ Entomol* 53(3):362-365, BIBL., TABS.

Jun 1960 421 J822

Aldrin, DDT, Heptachlor, Hippelates, Insecticides.

293-69

**DDT-AEROSOL AGAINST IXODES RICINUS. (GE)**

M Privora V Rupes A Cupalova

*Angew Parasitol* 9(3):179-183 MAP

Aug 1968 436.8 AN4

Chemical control (insects), DDT, Insecticidal aerosols, Ixodes ricinus, Ixodidae. English, Russian and German abstracts

294-69

**THE UNITED STATES AND MALARIA: DEBITS AND CREDITS.**

P F Russell

*N Y Acad Med Bull (SER 2)* 44(6):623-653 REF

Jun 1968 448.9 N48

Anopheles quadrimaculatus, Chemical control (insects), DDT, Economics, History, Insect vectors, Insecticide resistant insects, Larvicides, Malaria control, Plasmodium.

295-69

**SEASONAL VARIATIONS IN THE SUSCEPTIBILITY OF CULEX PIPIENS L. TO DDT AND DIELDRIN.**

M W Service

*Mosquito News* 27(3):338-342 REF

Sep 1967 421 M85

Chemical control (insects), Culex pipiens pipiens, Dieldrin, DDT, Insecticide resistant insects, Variance analysis.

296-69

**SUSCEPTIBILITY TO INSECTICIDES OF CERTAIN ANOPHELES ACCORDING TO THE TIME OF CATCH AND TESTING.**

A M Shalaby

*Mosquito News* 28(3):390-396 MAP

Sep 1968 421 M85

Anopheles, Chemical control (insects), Dieldrin, DDT, Insecticide resistant insects, Temperature.

297-69

**SUSCEPTIBILITY STUDIES ON ANOPHELES CULICIFACIES WITH DDT AND DIELDRIN IN GUJARAT STATE, INDIA.**

A M Shalaby

*J Econ Entomol* 61(2):533-541

Apr 1968 421 J822

Anopheles culicifacies, Chemical control (insects), Dieldrin, DDT, Insecticide resistant insects.

Abstract

298-69

**ERADICATION VERSUS CONTROL IN COMMUNICABLE DISEASE PREVENTION.**

F L Soper

*Amer Vet Med Ass J* 137(4):234-238, 17 REFS.

15 Aug 1960 41.8 AM3

Aedes aegypti, Anopheles, Infectious diseases, Public health.

299-69

**THE INFLUENCE OF SUBLETHAL DOSAGES OF INSECTICIDES ON THE BASAL FOLLICLES OF AEDES AEGYPTI (L.). (ABSTRACT).**

D J Sutherland F D Beame A P Gupta

*Calif Mosquito Contr Ass Proc Pap* 35:110-111

1967 428 C763

Aedes aegypti, Dieldrin, DDT, Insect rearing, Malathion, Mortality.

Abstract: it appears highly probable that at least some insecticides, while controlling mosquito populations, induce survivors to rebuild populations more rapidly than expected.

300-69

**NOTES ON THE SYNTOMID MOTH LYMIRE EDWARDSI (GROTE) AND ITS CONTROL AS A PEST OF FICUS IN SOUTH FLORIDA.***Fla Entomol* 42(1):39-42, 1 TAB.

Mar 1959 420 F662

DDT, Moths, Ornamental trees, Florida, Toxaphene.

301-69

**EFFICACY OF USE OF SOME PHOSPHO-ORGANIC COMPOUNDS AS ACARICIDES IN FOCI OF TICK-BORNE ENCEPHALITIS. (RUS)**

I V Uspensky L N Barmina

*Med Parazit Parazitarn Bolezni* 37(3,MAY-JUN):283-288 REF

1968 448.8 M469

Acaricides, Chemical control (insects), DDT, Dosage, Encephalitis, Insect vectors, Insecticide application, Ixodes persulcatus, Ixodides, Virus diseases (animals). English summary

302-69

**THE EFFECTS OF VARIOUS ANESTHETICS ON THE ACTION OF DDT ON ANOPHELES LARVAE.**

S A White J C Jones

*Mosquito News* 28(1):29-33 REF

Mar 1968 421 M85

Anesthetics, Anopheles quadrimaculatus, DDT, DDT, Ddt, Insect physiology, Insecticide synergists, Larvae.

303-69

**EFFECTS OF SUBLETHAL DOSES OF DDT ON THE REPRODUCTION AND SUSCEPTIBILITY OF CULEX PIPIENS L.**

T M A Zaghoul A W A Brown

*World Health Organ Bull* 38(3):459-467 REF

1968 449.9 W892B

Culex pipiens, DDT, Dosage, Human diseases, Insect vectors, Insecticide resistant insects, Reproduction. French summary.

304-69

**SYNTHETIC ROUTES TO 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL) ETHANE-2-D, DEUTERO-DDT.**

B Zimmerman

*Diss Abstr Sect B* 28(10):4081B

Apr 1968 Z5055.U49D53

Aedes aegypti, Biochemistry, Chemical control (insects), Chemicals, DDT, Hydrogen, Immunity, Insect vectors, Insecticides.

Anthonomus grandis, Cochliomyia hominivorax, Coumaphos, DDT, Musca domestica, Ronnel, Toxaphene.

306-69

**BOARD LISTS PRECAUTIONS FOR FOREST SPRAY PROGRAMS.***Agr Chem* 17(4):78

Apr 1962 381 AG8

DDT, Forest insects, Forests, Insect control, Spraying.

307-69

**RESISTANCE: A DISCUSSION OF ITS IMPACT ON PLANT PROTECTION.***Agr Chem* 16(7):17-18

Jul 1961 381 AG8

DDT, Insecticide resistant insects, Malathion, Plant protection.

308-69

**ORGANISING AN ERADICATION PROGRAMME FOR AEDES AEGYPTI IN THE USA.**

Anonymous

*Int Pest Contr* 10(6,NOV-DEC):25-26

1968 79.8 P432

Aedes aegypti, Chemical control (insects), Chromosomes, DDT, Eradication, Insecticide resistant insects, Organizations.

309-69

**SPRAY CONTROVERSY HINDERS EFFICIENT CONTROL OPERATIONS.**

J A Dietrich

*Agr Chem* 15(5):57, 101-102

May 1960 381 AG8

DDT, Publicity, Spraying.

310-69

**CHANGES IN USAGE OF PLANT PROTECTION PREPARATIONS DURING THE LAST FIFTEEN YEARS. (GE)**

H Drees

*Gesunde Pflanzen* 19(12):244-248

Dec 1967 464.8 G33

Creosote, DDT, Fungicides, Herbicides, Insecticides, Mineral oil, Plant protection.

311-69

**INSECT CONTROL FOR GARDEN VEGETABLES.**

H W Goble

*Ontario Dep Agr Publ* 356:6 P.

7 ON8P

Accident prevention, Aphididae, Biochemistry, Carbaryl, Chemical control (pests), Diazinon, DDT, Dusting, Elateridae, Gardens, Insect pests, Malathion, Methoxychlor, Nicotine, Noctuidae, Rotenone, Slugs, Spraying, Tables (data), Vegetables. Published by Dept. of Agriculture and Food, parliament buildings, Toronto

312-69

**ACCUMULATION AND CONCENTRATION OF CHLORINATED HYDROCARBON PESTICIDES BY MICROORGANISMS IN SOIL.**

W H Ko J L Lockwood

*Can J Microbiol* 14(10):1075-1078

Oct 1968 448.8 C162

Absorption, Bacteria, Biochemistry, Chlorine, Dieldrin, DDT, Fungi, Hydrocarbons, Pentachloronitrobenzene, Pesticides, Rhizoctonia solani, Soil leaching, Soil microorganisms.

313-69

**CONVERSION OF DDT TO DDD IN SOIL AND THE EFFECT OF THESE COMPOUNDS ON SOIL MICROORGANISMS.**

W H Ko J L Lockwood

*Can J Microbiol* 14(10):1069-1073 REF

Oct 1968 448.8 C162

Agar, Alfalfa, Bacteria, Chemical reactions, DDT, Insecticide residues, Nutrient solutions (plants), Soil microorganisms, TDE.

314-69

**EFFECTS OF INSECTICIDES ON INSECTS AND PATHOGENIC FUNGI ASSOCIATED WITH ALSIKE CLOVER ROOTS.**

## CROP PROTECTION

305-69

**ENTOMOLOGISTS RESEARCH RESULTS.***Agr Chem* 15(1):38-40

Jan 1960 381 AG8

EXCHANGE

59

## CROP PROTECTION

315-69

C M Leach E A Dickason A E Gross  
*J Econ Entomol* 54(3):543-546, 12 REFS.  
Jun 1961 421 J822  
Aldrin, Alsike clover, DDT, Fusarium, Heptachlor, Phoma, Vericillium.

315-69

SEARCH FOR BIOLOGICAL CONTROLS  
POSES THREAT TO NATION'S FOOD SUPPLY.  
D Lerch  
*Agr Chem* 19(11):21-22, 103  
Nov 1964 381 AG8  
Biological control (pests), DDT, Food supply, Pesticides.

316-69

SCIENCE AND SENSE. AS PRESENTED TO  
THE WEED SOCIETY OF AMERICA, FEBRU-  
ARY 8, 1966.  
L A McLean  
12P

Feb 1966 SB959.M3

Agricultural industries, Agricultural legislation, Chemical control (pests), Chlorinated hydrocarbons, DDT, Environment, Pesticide residues, Pesticides.

317-69

LOW VOLUME AERIAL SPRAYING.  
K Messenger

*Agr Chem* 19(9):61-64

Sep 1964 381 AG8

Aerial spraying, Anthonomus grandis, Chrysomelidae, Circulifer tenellus, DDT, Malathion.

318-69

COMPARISON OF SEVIN WITH DDT AND  
ROTENONE ON TOMATOES UNDER TROPICAL  
CONDITIONS.

G W Miskimen

*J Econ Entomol* 53(6):1128-1129, 4 REFS.

Dec 1960 421 J822

Carbaryl, DDT, Rotenone, Tomatoes, Virgin Islands.

319-69

DDT RESISTANCE IN BARLEY, HORDEUM  
VULGARE- I. INDUCED MUTANTS FOR RE-  
SISTANCE.

A T Wallace F O Rillo R M Browning

*Radiat Bot* 8(5):381-388 REF

Dec 1968 450 R11

Barley, Chlorophylls, DDT, Genes, Leaves, Plant genetics, Plant hardiness, Plant mutation, Resistance. French and German summaries.

## DISEASES

320-69

THE GYPSY MOTH THREAT IN AMERICA.

*Agrichem West* 11(9):13-14

Sep 1968 381 AG85

Aerial spraying, Biological control (insects), Carbamates, Carbaryl, Carpocapsa pomonella, Chemical control (insects), DDT, Epidemiology, Hardwoods, Insect morphology, Porthetria dispar, Trees.

321-69

SENSORIAL ANALYSIS ON TUBERS OF NATIVE  
POTATOES TREATED WITH INSECTI-  
CIDES. (POR)

J O Boock R S Garruti A Orlando J P N Jorge

*Biologico* 34(2):36-38

Feb 1968 442.8 B529

Carbaryl, Diazinon, DDT, Endosulfan, Fungicides, Insecticide residues, Parathion, Plant physiology, Potatoes, Taste testing.

An unpleasant flavor was detected in potatoes treated with insecticides: endosulfan, diazinon, parathion, DDT and carbaryl.

322-69

DISEASES AND PARASITES OF THE ROSE.  
(FR)

A Duperrex

## BIBLIOGRAPHY

*Rev Horticol Suisse* 41(7):1-16

Jul 1968 80 R3212

Chemical control (plant diseases), Copper carbonate, Diazinon, DDT, Fungus diseases (plants), Illustrations, Insect pests, Lindane, Plant physiological diseases, Rosa, Symptomatology, Thiocarbamates, Zineb.

323-69

LOW TEMPERATURE SPRAYS FOR DUTCH  
ELM DISEASE CONTROL.

A H Epstein

*Plant Dis Rep* 53(4):304-306

Apr 1969 1.9 P69P

Ceratocystis ulmi, Chemical control (plant diseases), Chlorinated hydrocarbons, Dieback, DDT, Fungus diseases (plants), Methanol, Methoxychlor, Spraying, Temperature, Ulmus, Water.

324-69

INFLUENCE OF INSECTICIDE-FUNGICIDE  
SPRAY PROGRAMMES ON GROWTH OF  
APPLE NURSERY TREES.

F L Gambrell R M Gilmer

*J Sci Food Agr* 12(3):1-127-6

Mar 1961 382 SO12

Apples, Demeton, DDT, Lindane, Powdery mildew (apples).

325-69

DORMANT SPRAYS FOR THE CONTROL OF  
DUTCH ELM DISEASE.

G E Hafstad J F Reynolds

*Agr Chem* 17(4):65

Apr 1962 381 AG8

Dieback (ulmus), DDT, Methoxychlor, Spraying.

326-69

A NEW DISEASE OF BANANAS IN THE  
CAUCA VALLEY: A BACTERIOSIS. (SP)

C Llanos M

*Agr Trop* 23(12):806-812

Dec 1967 26 AG8

Aldrin, Bacterial diseases (plants), Bananas, Chemical control (pests), DDT, Formaldehyde, Insect vectors.

327-69

TOMATO SPOTTED WILT (TOMATO  
SPOTTED WILT VIRUS).

*Agr Gaz New S Wales* 78(PT 10):BACK PAGE

Oct 1967 23 N472

Chemical control (insects), Dimethoate, DDT, Insect vectors, Spotted wilt (tomatoes), Thrips tabaci, Virus diseases (plants).

328-69

TOMATO YELLOW TOP.

*Agr Gaz New S Wales* 79(9):BACK COVER

Sep 1968 23 N472

Aphididae, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, Dimethoate, DDT, Insect vectors, Insecticides, Methyl demeton, Organophosphorus compounds, Tomatoes, Virus diseases (plants), Yellow top.

329-69

COMPATIBILITY STUDIES ON BACILLUS  
THURINGIENSIS BERLINAR WITH  
CHLORINATED HYDROCARBONS.

M R Rajasekharan R N Pillai N R Rao E

Dharmaraju

*Andhra Agr J* 14(5):167-168

1967 34.2 AN4

Bacillus thuringiensis, Benzene hexachloride, Carbaryl, DDT, Endosulfan, Endrin, Isobenzan, Toxicology.

330-69

A LEAF DISORDER OF CACAO IN COSTA  
RICA.

J A Salas A J Hansen

*Phytopathology* 53(1):25

Jan 1963 464.8 P56

Cacao, DDT, Leaves, Malathion, Plant diseases.

331-69

THE DETERMINATION OF DDT DEPOSITED  
ON COTTON PLANTS IN AN AIRSPRAY  
TRIAL IN TANZANIA.

D J Webley R H Parish

*Arusha Trop Pesticides Res Inst Misc Rep* 598, 11 P

Jan 1967 423.92 G7922

Aerial spraying, Cotton, DDT, Heliothis armigera, Persistence.

## ARTHROPODS

332-69

PRIOR LOCAL APPROVAL IS KEY TO SUCCESSFUL  
SPRAY PROGRAMS.

*Agr Chem* 15(6):120

Jun 1960 381 AG8

Aerial spraying, Connecticut, DDT, Porthetria.

333-69

PINPOINT SPRAYING - ACCURATE SPRAY-  
ING APPLICATION CREDITED FOR A 99.7  
PER CENT KILL.

*Aerial Appl* 3(5):4, 12

May 1965 333.8 AE8

Aerial insect control, Carbaryl, Choristoneura, DDT, Forest insects, Geometridae, Helicopters, Idaho, Insecticide residues, Picca, Tsuga, Washington, Waterways.

334-69

PENETRATION OF SEEDS BY ACETONE  
SOLUTES.

*J Sci Food Agr* 15(7):11-22-4

Jul 1964 382 SO12

Acetone, Barley, DDT, Oats, Seed treatment, Wheat.

335-69

COSTA RICAN CACAO INSECTS: THEIR  
ROLE IN CHERELLE WILT AND EFFECT ON  
YIELD.

*J Sci Food Agr* 12(3):1-129-1

Mar 1961 382 SO12

Cacao, Cherelle wilt (cacao), Dieldrin, DDT.

336-69

NEW INSECTICIDES FOR LYGUS BUG CON-  
TROL ON VEGETABLE SEED CROPS.

*J Sci Food Agr* 12(3):1-128-6

Mar 1961 382 SO12

Carbophenothion, DDT, Endosulfan, Miridae, Trichlorfon, Vegetables.

337-69

INSECTICIDES AS A FACTOR IN POPULA-  
TION FLUCTUATIONS OF MITES ON LU-  
CERNE.

*J Sci Food Agr* 15(9):11-125-10

Sep 1964 382 SO12

Alfalfa, Dieldrin, DDT, Mites, Schradan.

338-69

PRECISION APPLICATION CREDITED WITH  
SUCCESS OF FOREST PROJECT.

*Agr Chem* 18(9):71, 177

Sep 1963 381 AG8

Carbaryl, DDT, Geometridae, Pesticide application, Tsuga.

339-69

SOME PESTS OF ORNAMENTAL PLANTS IN  
MADRAS.

E V Abraham M D Padmanabhan

*Indian Hort* 12(2, JAN-MAR):31-32

1968 80 IN23

Acrididae, Agrotis, Aldrin, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Chrysomelidae, DDT, Heptachlor, Insect pests, Insecticides, Macropopillia arrowi, Ornamental plants, Phytometra.



340-69

**LOW-VOLUME AERIAL SPRAYING OF SEVERAL INSECTICIDES FOR COTTON-INSECT CONTROL.**

H M Adair R T Kincade M L Laster J R Brazzel  
*J Econ Entomol* 60 (4):1121-1127  
 15 Aug 1967 421 J822

Aerial spraying, *Anthonomus grandis*, Cotton, DDT, *Heliothis zea*, Malathion, Methyl parathion, Tde, Terpene polychlorinates, Toxaphene. Toxaphene or strobane mixed with a DDT and methyl parathion combination, and TDE with malathion

Abstract

341-69

**SEED TREATMENT WITH PHORATE, DISULFOTON, AND OTHER INSECTICIDES TO CONTROL PEA INSECTS IN IRAQ.**

A F Al-Azawi  
*J Econ Entomol* 59(4):859-864, PL., TABS.  
 Aug 1966 421 J822

Carbaryl, Carbofenothion, Dichlorvos, Disulfoton, DDT, Endosan, Endosulfan, Insecticides, Iraq, Pea insects, Phorate, Phosphamidon, Seed treatment, Trichlorfon.

342-69

**CONTROL OF THE WHITE MITE ON COTTON WITH VARIOUS POWDER AND DUST PRODUCTS. (POR)**

P R Almeida R D Cavalcante A A Holanda  
*Biologico* 33(11):251-253  
 Nov 1967 442.8 B529

Chemical control (insects), Cotton, DDT, Mites, Pesticides.

343-69

**DDT AND THE FARMER.**

Anonymous  
*J Agr* 67(2):53  
 Feb 1969 23 V66J

Chemical control (pests), Chlorinated hydrocarbons, DDT, Pesticides. Many crops are discussed in relation to DDT application.

344-69

**NOTE ON DAMAGE TO GRASSES IN THE PEACE RIVER REGION BY THE SPITTLEBUG, PHILARONIA BILINEATA SAY, (CERCOPIDAE: HEMIPTERA).**

D A Arnott I Bergis  
*Entomol Soc British Columbia J* 64:8-9  
 01 Aug 1967 420 B77 (2)

Cercopidae, Chemical control (insects), DDT, Grasses, Hemiptera, Insect vectors, Toxicology. English abstract

345-69

**THE BEET ARMYWORM, SPODOPTERA EXIGUA, AN ECONOMIC PEST OF CITRUS IN CALIFORNIA.**

E L Atkins Jr  
*J Econ Entomol* 53(4):616-619, BIBL., PL.  
 Aug 1960 421 J822

Beets, Citrus, DDT, Parathion, Spodoptera.

346-69

**DOUBLE YOUR COTTON YIELD BY SPRAYING.**

A S Atwal K Singh  
*Prog Farming* 4(6):4-5  
 Jul 1968 S19.P8

Aleyrodidae, Aphididae, Chemical control (insects), Chlorinated hydrocarbons, Cicadellidae, Cotton, Crop yields, Dimethoate, DDT, Endrin, Ethylthioethyl O,O-dimethyl phosphorodithioate, S-(2-, Formothion, Formulations, Gelechiidae, Insect pests, Insecticide application, Insecticides, Malathion, Organophosphorus compounds, Spraying.

347-69

**CONTROL OF THE CASTOR SHOOT AND CAPSULE BORER, DICHOCROCIS PUNCTIFERIS GUEN.**

B S Bai N V Radha B V David  
*Madras Agr J* 55(11):470-473

Nov 1968 22 M262

Benzene hexachloride, Carbamates, Carbaryl, Castorbeans, Chemical control (insects), Chlorinated hydrocarbons, Dichocrocis punctiferis, DDT, Fenthion, Imidan, Insect control, Insecticides, Malathion, Organophosphorus compounds, Parathion, Plant protection, Pyraustidae, Trichlorfon.

348-69

**INSECTICIDES IN NORWEGIAN FORESTRY. (NO)**

A Bakke  
*Opusc Entomol* 33(1-2):42-43  
 1968 421 OP7  
 DDT, Forestry, Hylobius, Insecticides, Lindane. English abstract

349-69

**RESISTANCE TO ORGANOCHLORINE INSECTICIDES IN THE TUBER FLEA BEETLE, EPITHRIX TUBERIS GENT (COLEOPTERA: CHRYSOMELIDAE), IN BRITISH COLUMBIA.**

F L Banham D G Finlayson  
*Entomol Soc Brit Columbia Proc* 64:17-22, MAP  
 01 Aug 1967 420 B77  
 Chlorinated hydrocarbons, Diazinon, Dieldrin, DDT, Epitrix tuberis, Insecticide resistant insects, Potatoes.

Abstract

350-69

**INTERFERENCE WITH THE BIOLOGICAL CONTROL OF COTTONY-CUSHION SCALE BY INSECTICIDES AND ATTEMPTS TO RE-ESTABLISH A FAVORABLE NATURAL BALANCE.**

B R Bartlett C F Lagace  
*J Econ Entomol* 53(6):1055-1058, 12 REFS.  
 Dec 1960 421 J822

Biological control (insects), California, Citrus, DDT, Icerya, Malathion, Parathion, Rodolia.

351-69

**AN ESTIMATE OF THE AREA OF DANISH FORESTRY WHICH IS TREATED WITH PESTICIDES OTHER THAN HERBICIDES.**

B Bejer-Petersen  
*Opusc Entomol* 33(1-2):44-46  
 1968 421 OP7

Chemical control (insects), DDT, Forestry, Insect control, Lindane, Organophosphorus compounds.

352-69

**SETTING UP A METHOD FOR CONTROL OF CLOVER WEEVILS. (FR)**

M Bertran P Jourdeuil  
*Rev Zool Agr Appl* 66(10-12, 4TH TRIMESTER):117-138 REF  
 1967 410.9 SO12

Chemical control (insects), Curculionidae, DDT, Hypera, Insect pollinators, Predaceous insects, Red clover, Toxaphene.

The chemical control of various weevils of red clover is discussed. Side effects of treatment on the grain, the insect pollinators, and natural predators are considered.

353-69

**FOREST ENTOMOLOGY.**

D Bevan  
*Great Brit Forest Comm Rep Forest Res* 112-115  
 1968 99.9 G795RE

Aldrin, Benzene hexachloride, Chlorinated hydrocarbons, DDT, Forest insects, Insect control, Insecticides, Malathion, Organophosphorus compounds.

354-69

**CHEMICALS THAT TAKE CARE OF THE MANGO HOPPER.**

L J Bhatia  
*Indian Farming* 16(10):16  
 Jan 1967 22 IN283

Carbaryl, Chemical control (insects), Cicadellidae, DDT, Malathion, Mangoes.

Control of mango leafhoppers in India with DDT, carbaryl and malathion is discussed.

355-69

**INSECT PESTS OF PULSE CROPS.**

O S Bindra  
*Indian Farming* 17(11):12-14, 56  
 Feb 1968 22 IN283

Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, DDT, Insect pests, Insecticides, Legumes.

356-69

**CONTROL OF A SPRUCE BUDWORM OUTBREAK IN QUEBEC THROUGH AERIAL SPRAYING OPERATIONS.**

J R Blais  
*Can Entomol* 95(8):821-827, BIBL. 826-827  
 Aug 1963 421 C16  
 Aerial spraying, Choristoneura fumiferana, DDT, Forest insects, Quebec.

357-69

**CONTROL OF THE CORN EARWORM WITH AMERICAN CYANAMID 18133.**

R A Blanchard L W Getzin W A Douglas  
*J Econ Entomol* 53(4):695-696  
 Aug 1960 421 J822

American Cyanamid 18133, Corn, Diethyl 0-2-pyrazinyl phosphorothioate, 0,0-, DDT, *Heliothis zea*, O,O-diethyl O-2-pyrazinyl phosphorothioate.

358-69

**CONTROL OF THE LESSER PEACH TREE BORER IN VIRGINIA.**

M L Bobb  
*J Econ Entomol* 54(4):799-800, 2 REFS.  
 Aug 1961 421 J822  
 Azinphosmethyl, Dieldrin, DDT, Endosulfan, Endrin, Parathion, Peaches, Virginia.

359-69

**LABORATORY TESTS WITH TOXAPHENE. DDT, AND SEVIN AGAINST LYGUS HESPERUS ON COTTON.**

G T Bottinger A N Sparks  
*J Econ Entomol* 54(6):1261, 3 REFS.  
 Dec 1961 421 J822

Arizona, Carbaryl, Cotton, DDT, Lygus, Toxaphene.

360-69

**INSECTICIDE CONTROL OF HELIOTHIS PUNCTIGERA WALLENGR. II. LINSEED CROP, 1961.**

T V Bourke L Campbell-Smith  
*Agr Gaz New S Wales* 78(Pt 9):543-546  
 Sep 1967 23 N472

Carbaryl, Chemical control (insects), DDT, Endosulfan, Flaxseed, *Heliothis*.

361-69

**THE DAMAGING OCCURRENCE OF ARADUS CINNAMOMEUS PANZ. IN SWEDEN. (GE)**

L Brammanis  
*Anz Schadlingskunde* 41(2):17-19 REF  
 Feb 1968 421 AN9

Aerial spraying, Aradidae, *Aradus cinnamomeus*, Benzene hexachloride, Biochemistry, Chemical control (insects), DDT, Insect morphology, Insect pests, *Pinus sylvestris*.

362-69

**EUROPEAN CORN BORER CONTROL IN POTATOES.**

D F Bray  
*J Econ Entomol* 54(4):782-784, 5 REFS.  
 Aug 1961 421 J822  
 Carbaryl, Corn, DDT, Endosulfan, Kepone, Myzus, Phorate, Phosphamidon, Potatoes, Pyrausta.

363-69

**EFFECTIVENESS OF CHLORINATED HYDROCARBON INSECTICIDE MIXTURES FOR CONTROL OF RESISTANT AND SUSCEPTIBLE BOLL WEEVILS.**

J R Brazzel D A Lindquist  
*J Sci Food Agr* 12(1):1-20-8  
 Jan 1961 382 SO12  
*Anthonomus grandis*, DDT, Toxaphene.

364-69

**THE EFFECTIVENESS OF CHLORINATED HYDROCARBON INSECTICIDE MIXTURES FOR CONTROL OF RESISTANT AND SUSCEPTIBLE BOLL WEEVILS.**

J R Brazzel D A Lindquist  
*J Econ Entomol* 53(4):551-554, *BIBL.*, *TABS.*  
 Aug 1960 421 J822

*Anthonomus grandis*, Chlorine, Cotton, DDT, Hydrocarbons, Toxaphene.

365-69

**WIREWORMS IN SWEET POTATOES; RESISTANCE TO CYCLODIENE INSECTICIDES AND CONTROL WITH A MIDSUMMER APPLICATION OF INSECTICIDE OVER FOLIAGE.**

C H Brett G D Jones D A Mount J D Rudder  
*J Econ Entomol* 59(1):99-102  
 Feb 1966 421 J822

Cyclodiene, Diazinon, Elateridae, Foliage, Insecticides, Sweet potatoes.

366-69

**GROWTH AND DEVELOPMENT OF COTTON AS AFFECTED BY TOXAPHENE, DDT, METHYL PARATHION, AND CALCIUM ARSENATE.**

L C Brown G W Cathey C Lincoln  
*J Econ Entomol* 55(3):298-301, *TABS.*  
 Jun 1962 421 J822

Calcium arsenate, Cotton, DDT, Methyl parathion, Plant morphology, Toxaphene.

367-69

**FACTORS AFFECTING THE APPEARANCE OF HOLLY OAKS IN SOUTHERN CALIFORNIA.**

L R Brown C O Eads  
*J Econ Entomol* 62(1):114-117  
 17 Feb 1969 421 J822

*Armillaria mellea*, Chemical control (insects), Dieback, DDT, Insect vectors, Oxydemetonmethyl, Plant diseases, *Quercus ilex*, Spraying.

368-69

**EUROPEAN CORN BORER CONTROL IN PEPPERS.**

P P Burbutis R VanDenburgh D F Bray L P Ditman  
*J Econ Entomol* 53(4):590-592, *BIBL.*  
 Aug 1960 421 J822

Carbaryl, Corn, DDT, Pepper (spice), *Pyrausta*.

369-69

**EUROPEAN MAIZE BORER CONTROL IN PEPPERS.**

P P Burbutis R VanDenBurgh D F Bray L P Ditman  
*J Sci Food Agr* 12(1):1-20-3  
 Jan 1961 382 SO12

Carbaryl, DDT, *Pyrausta*, Redpeppers (vegetable).

370-69

**DOSAGE LEVELS AND SEASONAL BEHAVIOR OF INSECTICIDES USED IN CONTROL OF EUROPEAN PINE SHOOT MOTH.**

J W Butcher R B Carlson  
*J Econ Entomol* 54(5):987-989, 5 *REFS.*  
 Aug 1961 421 J822

Carbaryl, Dimethoate, DDT, Malathion, Methoxychlor, *Rhyacionia*.

371-69

**INFLUENCE OF TIMING AND INSECT BIOLOGY ON THE EFFECTIVENESS OF INSECTICIDES APPLIED FOR CONTROL OF EUROPEAN PINE SHOOT MOTH, RHYACIONIA BUOLIANA.**

J W Butcher O L Haynes  
*J Econ Entomol* 53(3):349-354, *BIBL.*  
 Jun 1960 421 J822

Azinphosmethyl, Carbaryl, Dimethoate, DDT, Insect biology, Insecticides, Mevinphos, *Pinus*, *Rhyacionia*.

372-69

**CONTROL OF ONION FLY, DELIA ANTIQUA, WITH SEED DRESSINGS.**

P W Carden

*J Sci Food Agr* 12(1):1-19-10

Jan 1961 382 SO12  
 Aldrin, Delia, DDT, Onions, Seed treatment.

373-69

**NEW INSECTICIDES FOR LYGUS BUG CONTROL ON VEGETABLE SEED CROPS.**

E C Carlson  
*J Econ Entomol* 53(5):767-771, *TABS.*  
 Oct 1960 421 J822

Carbophenothion, Disulfoton, DDT, Endosulfan, Ethion, *Lygus*, Seeds, Trichlorfon, Vegetables.

374-69

**THE PERFORMANCE OF DDT FOR CORN EARWORM CONTROL OVER AN ELEVEN YEAR PERIOD.**

*Fla Entomol* 43(2):69-75, 6 *REFS.*, 3 *TABS.*  
 Jun 1960 420 F662  
 Corn, DDT, *Heliothis* zea.

375-69

**EARLY-SEASON APPLICATION OF DDT FOR PINK BOLLWORM CONTROL.**

A J Chapman L W Noble O T Robertson G L Smith  
*J Econ Entomol* 56(6):900-901  
 Dec 1963 421 J822

DDT, Insecticide application, *Pectinophora gossypiella*, Seasonal applications.

376-69

**CHEMICAL CONTROL OF MANGO HOPPERS (IDIOCERUS SPP.).**

S K Chikkerur  
*Plant Protect Bull* 19(3):39-41  
 1967 421 P69

Chemical control (insects), DDT, Dosage, Endrin, *Idiocerus*, Insect pests, Mangoes, Spraying, Sulfur.

377-69

**CONTROL OF MAPLE LEAF CUTTER, PARACLEMENSIA ACERIFOLIELLA, BY AERIAL SPRAYING.**

D P Connola  
*J Econ Entomol* 53(5):957-958, 1 *REF.*  
 Oct 1960 421 J822

*Acer saccharum*, Aerial spraying, DDT, *Paraclemensia*.

378-69

**CONTROL OF MAPLE LEAF CUTTER, PARACLEMENSIA ACERIFOLIELLA, BY AERIAL SPRAYING.**

D P Connola  
*J Sci Food Agr* 12(4):1-173-1  
 Apr 1961 382 SO12  
 Aerial spraying, DDT, *Paraclemensia*.

379-69

**AERIAL SPRAY TESTS AGAINST GYPSY MOTH, PORTHETRIA DISPAR IN NEW YORK.**

D P Connola R C Sweet  
*J Econ Entomol* 54(2):315-316  
 Apr 1961 421 J822  
 Aerial spraying, Carbaryl, DDT, New York, *Porthetria*.

380-69

**FIELD EXPERIMENTS AGAINST SEVERAL LATE-SEASON COTTON INSECTS IN 1959.**

C B Cowan Jr J W Davis Jr, C R Parencia  
*J Econ Entomol* 53(5):747-749  
 Oct 1960 421 J822  
*Anthonomus grandis*, Azinphosmethyl, Bayer 25141, Cotton, DDT, *Heliothis* zea, Terpene polychlorinates, Toxaphene.

381-69

**CONTROL OF SEVERAL COTTON INSECTS IN FIELD EXPERIMENTS IN 1960.**

C B Cowan Jr C R Parencia Jr J W Davis  
*J Econ Entomol* 54(5):1011-1014, 4 *REFS.*  
 Aug 1961 421 J822  
*Anthonomus grandis*, Azinphosmethyl, Carbaryl, Cotton, DDT, *Heliothis* zea, Malathion, Terpene polychlorinates, Toxaphene.

382-69

**EVALUATION OF INSECTICIDES FOR THE CONTROL OF THE GRAPE BERRY MOTH, PARALOBESIA VITEANA.**

J A Cox  
*J Econ Entomol* 54(5):853-855, 6 *REFS.*  
 Aug 1961 421 J822

Azinphosmethyl, Carbaryl, Diazinon, DDT, Grapes, *Paralobesia*, Parathion.

383-69

**NEODIPRION TAEDAE LINEARIS: A SAWFLY PEST OF LOBLOLLY AND SHORTLEAF PINES.**

J F Coyne  
*U S Forest Serv Forest Pest Leaflet* 34:4P  
 May 1968 A423.9 F764

Biological control (insects), Chemical control (insects), Diazinon, Dimethoate, DDT, Insect pests, *Neodiprion*, Parasitism, *Pinus echinata*, Plant injuries, Temperature, Viruses.

384-69

**CHEMICAL CONTROL OF THE TEA TORTRIX (HOMONA COFFEARIA NIETNER).**

W Danthanarayana D J W Ranaweera  
*Ceylon Tea Res Inst Tea Quart* 39(3):50-60  
 Sep 1968 68.18 C33

Braconidae, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect control, Insecticides, Tortricidae, Trichlorfon.

Of nineteen insecticides evaluated, the best control of the Tea Tortrix Caterpillar (*Homona coffearia* Nietner) was provided by DDT which at the rate of four to six pints (18-15 per cent EC) per acre gave satisfactory tortrix control for a period of more than two months. There was no difference in the degree of control obtained with either low-volume or high-volume applications of DDT. No adverse effects on the population of the tortrix parasite *Macrocentrus homonae* were evident.

385-69

**DESIGNING ORCHARD EXPERIMENTS FOR EUROPEAN RED MITE CONTROL.**

R J Daum J E Dewey  
*J Econ Entomol* 53(5):892-898, 35 *REFS.*, 5 *TABS.*  
 Oct 1960 421 J822

Captan, Diazinon, DDT, Glyodin, *Panonychus*, Parathion, Trees.

386-69

**FIELD EXPERIMENTS AGAINST SEVERAL LATE-SEASON COTTON INSECTS IN 1959.**

J N Davis C R Parencia Jr  
*J Sci Food Agr* 12(3):1-129-3  
 Mar 1961 382 SO12

*Anthonomus grandis*, Azinphosmethyl, Carbaryl, Cotton, DDT, *Heliothis* zea, Methyl parathion, Toxaphene.

387-69

**FIELD EXPERIMENTS FOR CONTROL OF THRIPS, COTTON FLEAHOPPERS, AND OVERWINTERED BOLL WEEVILS IN 1960.**

J W Davis C R Parencia Jr C B Cowan Jr  
*J Econ Entomol* 54(5):966-970, 5 *REFS.*, 3 *TABS.*  
 Aug 1961 421 J822

*Anthonomus grandis*, Cotton, DDT, Fenthion, *Frankliniella*, Psallus, Terpene polychlorinates, Texas, Toxaphene.

388-69

**REDUCING DDT PERSISTENCE.**

*Aust Tob Growers Bull* (12):22  
 1968 69.8 AU72  
 Anaerobic bacteria, DDT, Insect pests, Insecticide resistant insects, Plant protection, Tobacco.

389-69

**CONTROL OF VETCH BRUCHID, BRUCHID BRACHIALIS, IN OREGON.**

E A Dickason J D Lattin  
*J Econ Entomol* 54(2):219-221  
 Apr 1961 421 J822



Azinphosmethyl, Bruchus, DDT, Malathion, Methoxychlor, Naled, Oregon, Vetch.

390-69

FIELD TESTING OF INSECTICIDES FOR CONTROL OF THE NANTUCKET PINE MOTH, RHACONIA FRUSTRANA, AND THE EUROPEAN PINE SHOOT MOTH, R. BUOLIANA.

D E Donley  
*J Econ Entomol* 53(3):365-367, BIBL.  
Jun 1960 421 J822

Azinphosmethyl, Carbophenothion, Dioxathion, DDT, Malathion, Methyl parathion, Pinus, Rhaconia.

391-69

THE PERSISTENCE OF GYPSY MOTH PARASITES IN HEAVILY SPRAYED AREAS ON CAPE COD, MASSACHUSETTS.

P B Dowden  
*J Econ Entomol* 54(5):873-875, 2 REFS.  
Aug 1961 421 J822

DDT, Forest insects, Massachusetts, Porthetria.

392-69

PEAR LEAF SCORCH AND ITS RELATION TO THE EUROPEAN RED MITE.

G G Dustan A B Stevenson  
*J Econ Entomol* 54(5):918-920, 5 REFS.  
Aug 1961 421 J822

DDT, Ethion, Panonychus, Parathion, Pear leaf scorch, Pears.

393-69

BIOLOGY AND CONTROL OF LEOPARD MOTH ON PEAR TREES IN THE UNITED ARAB REPUBLIC.

M E Eldefrawi I Hanbal S M Hammad  
*China Plant Protect Bull* 15(4):70-76 REF  
Aug 1967 464.9 C47

Azinphosmethyl, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect biology, Insecticides, Malathion, Pears, Trichlorfon, Zeugera pyrina.

394-69

BIOECOLOGY AND CHEMICAL CONTROL OF THE APPLE CODLING MOTH (CARPOCAPSA POMONELLA) L. IN MENDOZA. (SP)

J C Espul N J A Cucchi F C La Red  
*Rev Invest Agr Ser S, Patol Veg* 3(9):105-141  
1966 464.8 R322

Apples, Attractants, Carpocapsa pomonella, Chemical control (insects), DDT, Insect ecology, Life cycle, Light traps, Methyl demeton, Parasitic insects, Phosphamidon. English abstract

395-69

CONTROL OF GRASSGRUB AND PORINA.

P G Fenimore  
*New Zeal J Agr Res* 114(5):59-61  
May 1967 23 N4892

Chemical control (insects), Chlorinated hydrocarbons, Costelytra zealandica, DDT, Lepidoptera, Lindane, New Zealand, Organophosphorus compounds, Pastures.

Chemical control recommendations and precautions for controlling grassgrubs and porina caterpillars is discussed.

396-69

HYLEMIA ILICRURA ROND. ON THE DIANTHUS CULTURES OF PESCIA AND VER-SILIA. (IT)

G A Fenili  
*Redia* (SER 2)50:151-162  
1967 421 R241

Aldrin, Anthomyiidae, Chemical control (insects), Dianthus, Dieldrin, DDT, Insect biology, Insect eggs, Larvae, Muscidae, Parathion, Pupae, Soil treatment, Spraying. English summary.

397-69

FIELD EXPERIMENTS ON CONTROL OF OVERWINTERED BOLL WEEVILS.

R E Fye A R Hopkins R L Walker  
*J Econ Entomol* 54(4):622-624, 2 REFS.  
Aug 1961 421 J822

Anthonomus grandis, Azinphosmethyl, Carbaryl, Cotton, DDT, Endrin, Hibernation, Malathion, Methyl parathion, Molasses, Toxaphene.

398-69

RESIDUAL ACTIVITY OF CHLORINATED HYDROCARBON INSECTICIDES IN PERMANENT TURF FOR EUROPEAN CHAFER CONTROL.

F L Gambrell H Tashiro G L Mack  
*J Econ Entomol* 61(6):1508-1511  
16 Dec 1968 421 J822

Aldrin, Amphimallon majalis, Chemical control (pests), Chlordane, Chlorinated hydrocarbons, Dieldrin, DDT, Grubs, Heptachlor, Insecticides, Lindane, Soil sanitation, Turf.

399-69

NATURAL ENEMIES OF LASPEYRESIA POMONELLA L. (LEPIDOPTERA, TORTRICIDAE) AND THE EFFECT OF CHEMICAL TREATMENT ON THEIR USEFUL ACTIVITY.

N K Gaprindashvili T N Novitskaya  
*Entomol Rev* 46(1 JAN-MAR):39-42 REF  
Mar 1967 421 R322AE

Chemical control (insects), DDT, Laspeyresia pomonella, Natural control (insects).

400-69

CHEMAGRO OFFERS 'PRACTICAL' PROGRAM TO SELECTIVELY CONTROL PESTS OF COTTON.

C F Garner  
*Agr Chem* 19(6):26-27  
Jun 1964 381 AG8

Aphididae, Azinphosmethyl, Cotton, DDT, Heliothis zea, Siphonaptera, Trichlorfon.

401-69

PROBLEMS IN THE CONTROL OF MINT INSECTS.

G E Gould  
*J Econ Entomol* 53(4):526-531, BIBL., PL.  
Aug 1960 421 J822

Dieldrin, DDT, Heptachlor, Indiana, Longitarsus, Raphoplusia.

402-69

CONTROL OF MINT INSECTS.

G E Gould  
*J Sci Food Agr* 12(1):1-20-2  
Jan 1961 382 S012

Dieldrin, DDT, Mentha, Raphoplusia, Terpene polychlorinates, Toxaphene.

403-69

ALTERNATIVES TO DDT FOR THE CONTROL OF THE PEA MOTH ON DRY HARVESTING PEAS.

H J Gould T J Legowski  
*Plant Pathol* 17(1):31-35  
Mar 1968 464.8 P692

Chemical control (insects), Chlorinated hydrocarbons, DDT, Fenthion, Insecticides, Laspeyresia nigricana, Methylthio-3,5-xylyl methylcarbamate, 4-, Peas.

Abstract:Fenthion known as Supracide and Bayer 37344 reduced pod infestation by over 90 percent. Other sprays gave little or no control.

404-69

CABBAGE LOOPER CONTROL IN FLORIDA - A COOPERATIVE PROGRAM.

G L Greene W G Genung R B Workman E G Kelsheimer  
*J Econ Entomol* 62(4):798-800 REF  
15 Aug 1969 421 J822

Cabbage, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, DDT, Feltia subterranea, Organophosphorus compounds, Plutella maculipennis, Spraying, Trichoplusia ni.

405-69

THE SITONA WEEVIL--A PEST OF LUCERNE (SITONA HUMERALIS).

L R Greenup  
*Agr Gaz New S Wales* 78(PT 9):528-529  
Sep 1967 23 N472

Alfalfa, Azinphosethyl, Chemical control (insects), DDT, Insect behavior, Sitona.

The life cycle, occurrence, dispersal, and chemical control of the Sitona weevil of alfalfa in Australia is discussed.

406-69

THE BLUE OAT MITE PENTHALEUS MAJOR (DUGES) (ACARINA: EUPODIDAE).

L R Greenup  
*Agr Gaz New S Wales* 78(PT 7):410-411  
Jul 1967 23 N472

Chemical control (insects), DDT, Grain, Grasses, Penthaeus major.

Chemical control of the blue oat mite, Penthaeus major, a grain and pasture crop pest in Australia is discussed.

407-69

CONTROL OF THE TADPOLE SHRIMP, TRIOPS LONGICAUDATUS IN CALIFORNIA RICE FIELDS.

A A Grigarick W H Lange D C Frinrock  
*J Econ Entomol* 54(1):36-40  
Feb 1961 421 J822

Carbaryl, Copper sulfate, DDT, Malathion, Rice, Shellfish, Triops.

408-69

EVALUATION OF CHEMICAL AND MICROBIAL MATERIALS FOR THE CONTROL OF THE CABBAGE LOOPER.

I M Hall R L Hale H H Shorey K Y Arakawa  
*J Econ Entomol* 54(1):141-146  
Feb 1961 421 J822

Azinphosmethyl, Cruciferae, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, Diethyl-1-(2,5-dichlorophenyl)-2-chlorovinyl phosphate, DDT, Ethion, Malathion, Naled, Parathion, Trichoplusia.

409-69

EVALUATION OF INSECTICIDES FOR CONTROL OF THE TOBACCO THRIPS ON PEANUTS.

J A Harding  
*J Econ Entomol* 54(1):200-201  
Feb 1961 421 J822

Carbophenothion, Diazinon, DDT, Ethion, Frankliniella, Lindane, Parathion, Peanuts, Texas, Toxaphene.

410-69

CONTROL OF LESSER CORNSTALK BORER ATTACKING GROUNDNUTS.

J A Harding  
*J Sci Food Agr* 12(1):1-21-7  
Jan 1961 382 S012

Cornstalk borer, DDT, Endrin, Flasmopalpus, Parathion, Peanuts, Sd 4402.

411-69

CONTROL OF THE LESSER CORNSTALK BORER ATTACKING PEANUTS.

J A Harding  
*J Econ Entomol* 53(4):664-667, TABS.  
Aug 1960 421 J822

Chlorane, DDT, Elasmopalpus, Endrin, Parathion, Peanuts, SD-4402.

412-69

EXPERIMENTS ON THE INSECTICIDAL CONTROL OF OXYCANUS FUSCOMACULATUS WALKER (LEPIDOPTERA: HEPIALIDAE).

R J Hardy  
*Tasmanian J Agr* 39(2):135-137  
May 1968 23 T182T

Chemical control (insects), Chlorinated hydrocarbons, DDT, Ethyl 0-2,4,5-trichlorophenyl ethylphosphonothioate, O-, Fenthion, Insecticides, Organophosphorus compounds, Trichlorfon.

Oxycaenus fuscumaculatus was most successfully and safely controlled with 21 oz. agritox and 18 oz. fenitrothion per acre.

413-69

LABORATORY TESTS OF INSECTICIDES AGAINST THE SALT-MARSH CATERPILLAR.

F H Harries

## CROP PROTECTION

414-69

*J Econ Entomol* 54(6):1266, 2 REFS.

Dec 1961 421 J822

Arizona, Carbaryl, Cotton, Diazinon, DDT, Endrin, Estigmene, Heptachlor, Mevinphos, Naled.

414-69

ADJUVANTS IN SPRAYS FOR INSECT CONTROL ON SWEET CORN.

E D Harris Jr

*Fla Entomol* 48(3):147-153, 6 REFS., 4 TABS.

Sep 1965 420 F662

Corn, DDT, Heliothis zea, Hyperodes, Spodoptera, Toxaphene.

415-69

DDT SPRAY FORMULATIONS AND DOSAGES FOR CONTROL OF CORN STEM WEEVIL, HYPERODES HUMILIS.

E D Harris Jr

*J Econ Entomol* 54(3):546-549, 5 REFS.

Jun 1961 421 J822

Corn, DDT, Heliothis zea, Hyperodes, Laphygma.

416-69

HYPERODES HUMILIS, A NEW PEST OF SWEET CORN IN THE EVERGLADES, AND ITS CONTROL.

E D Harris Jr

*J Econ Entomol* 53(2):251-257, BIBL., PL.

Apr 1960 421 J822

Azinphosmethyl, DDT, Everglades, Sweetcorn.

417-69

EXPERIMENTS FOR THE CONTROL OF SAP BEETLES IN SWEET CORN GROWN FOR PROCESSING.

F P Harrison

*J Econ Entomol* 53(1):174-175, BIBL.

Feb 1960 421 J822

Carpophilus, Corn, Diazinon, DDT, Malathion, Parathion.

418-69

THE EFFECTS OF DDT AND MALATHION UPON FOREST SOIL MICROARTHROPODS.

R C Hartenstein

*J Econ Entomol* 53(3):357-362, BIBL.

Jun 1960 421 J822

DDT, Forest soils, Malathion, Microarthropods, Pinus.

419-69

SAFETY OF WILDLIFE IS IMPORTANT TO PLANNERS OF GNAT-CONTROL PROGRAM.

W Hazeltine

*Agr Chem* 17(12):12-14, 76

Dec 1962 381 AG8

Diptera, DDT, Insect control, Parathion, Pesticide residues, Wildlife.

420-69

PORINA AND GRASSGRUBS PUT CURBS ON PRODUCTION.

G A H Helson

*New Zeal J Agr* 115(6):25, 27

Dec 1967 23 N48J

Caterpillars, DDT, Insect ecology, Lindane, Pasture management.

Crop losses due to Porina caterpillars and grass grubs is discussed. Control with DDT on pasture lands has been banned because of residue problems and the use of diazinon and lindane is suggested in its place.

421-69

EFFECTIVENESS OF INSECTICIDES AGAINST THE CORN EARWORM IN SORGHUM HEADS.

C F Henderson H G Kinzer J H Hatchett

*J Econ Entomol* 58(2):207-209

Apr 1965 421 J822

Carbaryl, Corn, DDT, Heliothis zea, Mevinphos, Naled, Sorghum.

422-69

TOXICITY OF SOME PESTICIDES TO PREDACIOUS ARTHROPODS IN ONTARIO PEACH ORCHARDS.

D H C Herne W L Putman

## BIBLIOGRAPHY

*Can Entomol* 98(9):936-942, BIBL. 941-942

Sep 1966 421 C16

Arthropoda, Orchards, Peaches, Pesticides, Predaceous insects, Toxicology.

423-69

THOSE HUNGRY GYPSIES (PHOTO STORY).

L Hess

*Amer Forests* 75(3):28-31

Mar 1969 99.8 F762

Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect control, Legislation, Porthetria dispar.

A photostory illustrating the destructive nature of the gypsy moth, Porthetria dispar, and several control measures are presented.

424-69

DISTRIBUTION OF INSECTICIDES SPRAYED BY AIRPLANE ON AN IRRIGATED CORN PLOT. IN: ORGANIC PESTICIDES IN THE ENVIRONMENT; SYMPOSIUM...AMERICAN CHEMICAL SOCIETY, ATLANTIC CITY, N.J., SEPT. 13-15, 1965. ROBERT J. GOULD, ED.

E Hindin D S May G H Dunstan

*Advances Chem Ser* 60:132-145, REF.

1966 381 AD93

Aerial spraying, Air pollution, Corn, Diazinon, DDT, Ethion, Insecticide residues, Irrigation, Soil contamination, Water pollution.

425-69

EFFECTS OF AN AERIAL DDT SPRAY ON AQUATIC INSECTS IN CONNECTICUT.

S W Hitchcock

*J Econ Entomol* 53(4):608-611, BIBL.

Aug 1960 421 J822

Aquatic insects, Connecticut, DDT, Spraying, Wildlife.

426-69

EFFECTS OF AN AERIAL DDT SPRAY ON AQUATIC INSECTS IN CONNECTICUT.

S W Hitchcock

*J Sci Food Agr* 12(1):1-22-1

Jan 1961 382 SO12

Aerial spraying, Aquatic insects, Connecticut, DDT.

427-69

EFFECTIVENESS OF INSECTICIDES AGAINST THE EUROPEAN MAIZE BORER AND GREEN PEACH APHID ON PEPPERS.

R N Hofmaster D F Bray L P Ditman

*J Sci Food Agr* 12(1):1-20-5

Jan 1961 382 SO12

Azinphosmethyl, Carbaryl, DDT, Endrin, Myzus, Phosphamidon, Pyrausta.

428-69

EFFECTIVENESS OF INSECTICIDES AGAINST THE EUROPEAN CORN BORER AND GREEN PEACH APHID ON PEPPERS.

R N Hofmaster D F Bray L P Ditman

*J Econ Entomol* 53(4):624-626, BIBL.

Aug 1960 421 J822

Aphididae, Azinphosmethyl, Bacillus thuringiensis, Beans, Carbaryl, Corn, DDT, Phosphamidon, Potatoes, Tomatoes.

429-69

UTILIZATION OF A NUCLEAR POLYHEDROSIS VIRUS TO CONTROL THE CABBAGE LOOPER ON COLE CROPS IN VIRGINIA.

R N Hofmaster L P Ditman

*J Econ Entomol* 54(5):921-923, 8 REFS.

Aug 1961 421 J822

Broccoli, Cole, DDT, Endrin, Mevinphos, Polyhedroses, Pyrethrum, Toxaphene, Trichoplusia, Virginia.

430-69

INDICATIONS ON PLANT CARE FOR OLIVE CROP CULTIVATION. (GE)

O Horning

*Gesunde Pflanzen* 19(5):94-97

May 1967 464.8 G33

Chemical control (insects), DDT, Field crops, Insecticides, Lindane, Olives, Rape, Siphonaptera, Tillage.

431-69

EVALUATION OF NEW MATERIALS FOR CODLING MOTH CONTROL IN WASHINGTON.

S C Hoyt

*J Econ Entomol* 54(6):1127-1130, 9 REFS.

Dec 1961 421 J822

Apples, Azinphosmethyl, Carbaryl, Carbophenothion, Carpocapsa, Diazinon, DDT, Ethion, Malathion, Parathion, Washington.

432-69

EFFECT OF UREA ON CONTROL OF SOME APPLE INSECTS WITH CERTAIN INSECTICIDES.

S C Hoyt

*J Sci Food Agr* 12(1):1-18-3

Jan 1961 382 SO12

Apples, Carpocapsa, Dicotyl, DDT, Malathion, Urea.

433-69

MINIMUM NUMBER OF INSECTICIDE APPLICATIONS FOR THE CONTROL OF THE EUROPEAN CORN BORER ON SWEET CORN IN QUEBEC.

M Hudon

*J Econ Entomol* 61(1):75-78 REF

Feb 1968 421 J822

Carbaryl, Chemical control (insects), DDT, Insecticide application, Ostrinia nubilalis, Sweetcorn.

Abstract

434-69

INSECTICIDAL FIELD TREATMENTS FOR THE CONTROL OF THE EUROPEAN CORN BORER. OSTRINIA NUBILALIS (HUBNER) IN SOUTHWESTERN QUEBEC, 1967.

M Hudon

*Pesticide Progr* 6(2):43-45

Mar 1968 79.8 P434

Biochemistry, Carbaryl, Chemical control (insects), Corn, DDT, Field crops, Insecticides, Ostrinia nubilalis, Plant injuries, Spraying.

435-69

TIMING INSECTICIDE APPLICATIONS FOR EUROPEAN CORN BORER CONTROL IN SOUTHWESTERN QUEBEC, 1967.

M Hudon

*Pesticide Progr* 6(2):44-45

Mar 1968 79.8 P434

Chemical control (insects), Corn, DDT, Injections, Insecticide application, Insecticides, Metamorphosis, Ostrinia nubilalis, Population, Time.

436-69

CONTROL OF YELLOW TEA MITE, HEMITARSONEMUS LATUS (BANKS) WITH DDT ON COTTON IN UGANDA.

W R Ingram

*J Sci Food Agr* 12(4):1-172-1

Apr 1961 382 SO12

Cotton, DDT, Hemitarsonemus latus, Mites.

437-69

THE CONTROL OF YELLOW TEA MITE, HEMITARSONEMUS LATUS (BANKS), WITH DDT ON COTTON IN UGANDA.

W R Ingram

*Bull Entomol Res* 51(3):557-582

Nov 1960 421 B87

Cotton, DDT, Hemitarsonemus latus, Tea, Uganda.

438-69

CHEMICAL CONTROL OF CODLING MOTH WITH DDT AND SEVIN, THE RESISTANCE PROBLEM OF CODLING MOTH TO DDT AND ADDITIONAL OBSERVATIONS ON THE EFFECT OF FRUIT THINNING OF SEVIN. (TU)

Z Iren

*Bitki Koruma Bulteni* 6(2):49-66 REF

1966 464.8 B542



Acaricides, Biochemistry, Carbaryl, Carpocapsa pomonella, Chemical control (insects), DDT, Fruit, Immunity, Insecticide application, Population, Research, Spraying. English summary

439-69

**STATUS AND CONTROL OF THE CORN STEM WEEVIL IN THE FLORIDA EVERGLADES.**

M J Janes W G Genung

*Fla Entomol* 52(3):137-140

Sep 1969 420 F662

Carbamates, Carbofuran, Chemical control (insects), Chlorinated hydrocarbons, Corn, DDT, Hydroxy-N-methyl-cis-crotonamide dimethyl phosphate, 3-, Hyperodes humilis, Insecticides, Phosphates.

440-69

**PESTICIDES AND BEES.**

C Johansen

*Agr Chem* 19(3):40

Mar 1964 381 AG8

Aldrin, Aramite, Bees, DDT, Malathion, Nicotine, Pesticides.

441-69

**BEE POISONING VERSUS CLOVER SEED WEEVIL CONTROL IN WHITE DUTCH CLOVER GROWN FOR SEED.**

C Johansen

*J Econ Entomol* 58(5):857-863

Oct 1965 421 J822

Bees, Endrin, Miccotrogus picrostris, Poisoning, White clover.

442-69

**BLOODWORMS- PESTS OF RICE.**

E L Jones

*Agr Gaz New S Wales* 79(8):477-478

Aug 1968 23 N472

Biochemistry, Chemical control (insects), DDT, Field crops, Insect pests, Insecticides, Plant injuries, Rice, Roots, Seed germination, Seedlings.

443-69

**INSECTICIDES IN FINNISH FORESTRY. (NO)**

E Kangas

*Opusc Entomol* 33(1-2):46-49

1968 421 OP7

Diprion, DDT, Forestry, Hylobius, Insecticides. English abstract

444-69

**INCIDENCE OF FIELD SPREAD OF INTERNAL CORK OF SWEET POTATO IN INSECTICIDE-TREATED PLOTS.**

E J Kantack W J Martin L D Newsom

*J Econ Entomol* 54(1):125-127

Feb 1961 421 J822

Aphididae, DDT, Insect vectors, Internal cork virosis, O-O-diethyl S-isopropylthiomethyl phosphorodithioate, Sweet potatoes.

445-69

**DEVELOPMENTS IN INSECTICIDE CONTROL OF THE RICE STEM BORER IN JAPAN.**

A Kawada

Baltimore, John Hopkins Press. 325-334 REF

1967 SB608.R559

Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insecticides, Organophosphorus compounds, Parathion, Pyralidae, Rice.

446-69

**LABORATORY STUDIES OF THREE-LINED POTATO BEETLE AND CONTROL WITH VARIOUS INSECTICIDES.**

T W Kerr C E Olney

*J Econ Entomol* 53(3):480-481, BIBL.

Jun 1960 421 J822

Dieldrin, DDT, Epitrix, Lema, Potatoes.

447-69

**LABORATORY TESTS OF INSECTICIDES AGAINST EGGS AND LARVAE OF THE CABBAGE LOOPER.**

W P Kerr J R Brazzel

*J Econ Entomol* 53(6):991-992, 6 REFS.

Dec 1960 421 J822

Carbaryl, Cotton, DDT, Eggs, Endosulfan, Endrin, Larvae, Mevinphos, Toxaphene, Trichoplusia.

448-69

**EFFECT OF MITE CONTROL ON CORN YIELD.**

E C Klostermeyer

*J Econ Entomol* 54(3):608-609, 1 REF.

Jun 1961 421 J822

Carbophenothion, Corn, Crop yields, Dicofof, DDT, Ethion, Tetranychus.

449-69

**INSECTICIDAL SUSCEPTIBILITY OF NYSIUS RAPHANUS, A PEST OF COTTON.**

T F Leigh

*J Econ Entomol* 54(1):120-122

Feb 1961 421 J822

Carbaryl, Cotton, Dieldrin, DDT, Malathion, Nysius, Toxaphene, Trichlorfon.

450-69

**DEVELOPMENT OF RESISTANCE TO DDT BY THE APPLE MAGGOT, RHAGOLETIS POMONELLA.**

D F Leonard

*J Econ Entomol* 54(5):880-882, 9 REFS.

Aug 1961 421 J822

Apples, DDT, Insecticide resistant insects, Maggots, Rhagoletis.

451-69

**CONTROL OF SUGAR-BEET MOTH, PHTHORIMAEA OCELLATELLA, BOYD.**

F J Loecher

*J Sci Food Agr* 12(5):1-225-2

May 1961 382 SO12

Benzene hexachloride, Dieldrin, DDT, Moths, Sugar beets.

452-69

**CONTROL OF SUGAR CANE BORER WITH INSECTICIDES.**

W H Long E J Conciene L D Newsom S D

Hensley W J McCormick

*J Sci Food Agr* 12(3):1-129-5

Mar 1961 382 SO12

Diatraea, Diatraea saccharalis, DDT, Endrin, Sugarcane.

453-69

**THE INFLUENCE OF SPRAY PROGRAMS ON THE FAUNA OF APPLE ORCHARDS IN NOVA SCOTIA. XI. EFFECTS OF LOW DOSAGES OF DDT ON PREDATOR POPULATIONS.**

F T Lord

*Can Entomol* 94(2):204-216, BIBL. 215-216

Feb 1962 421 C16

Apples, DDT, Population, Predaceous insects, Spraying.

454-69

**EVALUATION IN THE GREENHOUSE OF A NEW INSECTICIDE FOR BOLLWORM CONTROL.**

G F Ludvik M L Randolph W A Darlington

*J Econ Entomol* 61(1):304-306

Feb 1968 421 J822

Dichloro-3-(4-chlorophenyl)salicylanilide, 4'-5-, DDT, Heliothis zea, Toxaphene. Laboratory tests; compared on cotton sprayed with toxapheneDDT mixture.

Abstract

455-69

**DDT RESISTANT CODLING MOTHS ON PEARS IN CALIFORNIA.**

H F Madsen L A Falcon

*J Econ Entomol* 53(6):1083-1085, 4 REFS.

Dec 1960 421 J822

Azinphosmethyl, Carbaryl, Carbophenothion, Diazinon, DDT, Insecticide resistant insects, Kepone, Parathion, Pears.

456-69

**LABORATORY TESTS OF SOME INSECTICIDES AGAINST ADULTS OF THE APPLE MAGGOT, RHAGOLETIS POMONELLA.**

C W Maxwell

*J Econ Entomol* 54(3):526-528

Jun 1961 421 J822

Apples, Azinphosmethyl, Calcium arsenate, Carbaryl, Diazinon, Diptera, DDT, Lead arsenate, Malathion, Trypetidae.

457-69

**THE SOUTH AFRICAN CARNATION ROLLER MOTH EPICHRISTODES ACERBELLA (WALK.) DIAKONOFF. (GE)**

K Mayer

*Nachrichtenbl Deut Pflanzenschutzdienstes*

19(1):8-9 REF

Jan 1967 442.9 B832

Carbaryl, Chemical control (insects), Dianthus caryophyllus, DDT, Insect pests.

458-69

**MARYLAND ARBORISTS DISCUSS INSECT CONTROL.**

C W McComb

*Amer Nurseryman* J 129(6):12,44,46,48,50

15 Mar 1969 80 AM371

Agrilus anxius, Aphididae, Buprestidae, Cerambycidae, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Fertilizer application, Fertilizers, Insect pests, Insecticides, Lindane, Saperda calcarata, Trece.

459-69

**EFFECT OF LYGUS BUG CONTROL ON YIELD OF LIMA BEANS.**

F L McEwen G E R Hervey

*J Sci Food Agr* 12(1):1-19-6

Jan 1961 382 SO12

DDT, Lima beans, Lygus.

460-69

**THE EFFECT OF LYGUS BUG CONTROL ON THE YIELD OF LIMA BEANS.**

F L McEwen G E R Hervey

*J Econ Entomol* 53(4):513-516, BIBL., TABS., PL.

Aug 1960 421 J822

DDT, Lima beans, Lygus, Mevinphos, Parathion.

461-69

**FIELD TESTS WITH INSECTICIDES FOR PINK BOLLWORM CONTROL IN 1958.**

R L McGarr A J Chapman W L Lowry

*J Econ Entomol* 54(5):972-974

Aug 1961 421 J822

Azinphosmethyl, Bayer 25141, Benzene hexachloride, Carbaryl, Cotton, DDT, Fenthion, Heliothis zea, Pectinophora gossypiella.

462-69

**GRASSGRUB PROBLEM AWAITS SOLUTION.**

G McLaughlan

*New Zeal J Agr* 115(4):17-19

Oct 1967 23 N48J

Chemical control (insects), DDT, Pasture management, Plant pest control, Scarabaeidae.

Chemical, biological, cultural and management control of grass grubs are discussed.

463-69

**THE ORIENTAL FRUIT MOTHI AND ITS CONTROL.**

R L Miller H Y Forsythe

*Ohio State Univ Ext Leaflet* (L-159):2P

Mar 1969 275.29 OH32F1.

Azinphosmethyl, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Fruit, Grapholitha molesta, Insecticides, Organophosphorus compounds, Parathion, Peaches.

464-69

**THE CODLING MOTHI AND ITS CONTROL.**

R L Miller H Y Forsythe

*Ohio State Univ Ext Leaflet* (L-158):2P

Mar 1969 275.29 OH32F1.

Apples, Azinphosmethyl, Carbaryl, Carpocapsa pomonella, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insecticides, Larvae.

465-69

# THE EUROPEAN PINE SHOOT MOTH; ECOLOGY AND CONTROL IN THE LAKE STATES.

W E Miller

*Forest Sci Monogr* 14, 72 P REF  
1967 99.8 F76322

Biological control (insects), Biological control (insects), Chemical control (insects), DDT, Forest insects, Insect control, Pinus resinosa, Rhyacionia. Review of the literature

466-69

# EXPERIMENTS WITH CONCENTRATED DDT SPRAYS FOR EUROPEAN PINE SHOOT MOTH SUPPRESSION IN FOREST PLANTATIONS.

W E Miller D L Haynes

*J Econ Entomol* 54(5):1014-1018, 9 REFS.

Aug 1961 421 J822

DDT, Pinus.

467-69

# SUPPRESSION OF THE SARATOGA SPIT-LEBUG, APHROPHORA SARATOGENSIS (FITCH), WITH MALATHION IN MICHIGAN PINE PLANTATIONS.

Imants Millers L F Wilson

*J Econ Entomol* 58(5):942-944

Oct 1965 421 J822

Malathion, Michigan, Pinus.

468-69

# RASPBERRY MOTH.

*Great Brit Min Agr Fish Food Adv Leaf* (66):1-3  
Dec 1967 10 G79LA

Chemical control (insects), Cultural control (insects), DDT, Insect biology, Lampronia rubicella, Lindane, Raspberries.

The life cycle and control of the raspberry moth *Lampronia rubicella* with a description of infested plants are discussed. Burning of all infested wood and control with tar oil washes, DDT and lindane are the recommended control measures.

469-69

# CAPSID BUGS ON FRUIT.

*Great Brit Min Agr Fish Food Adv Leaf* (154):5P  
Jul 1968 10 G79LA

Azinphosmethyl, Chemical control (insects), DDT, Fruit, Insect biology, Insect identification, Insect pests, *Lygocoris pabulinus*, Plant injuries, *Plesiocoris rugicollis*, Spraying.

470-69

# COMPARISON OF SEVIN WITH DDT AND ROTENONE ON TOMATOES UNDER TROPICAL CONDITIONS.

G W Miskimen

*J Sci Food Agr* 12(5):1-226-3

May 1961 382 SO12

Carbaryl, DDT, Rotenone, Tomatoes, Tropical agriculture.

471-69

# A PREVENTIVE BOLL WEEVIL CONTROL PROGRAM APPLIED TO A TENSQUARE-MILE AREA WITHIN A TREATED COUNTY.

W J Mistic E R Mitchell

*J Econ Entomol* 61(1):179-186

Feb 1968 421 J822

*Anthonomus grandis*, Azinphosmethyl, Carbaryl, Chemical control (insects), Cotton, DDT, Toxaphene, Toxaphene-DDT mixture used.

Abstract

472-69

# A PREVENTIVE BOLL WEEVIL CONTROL PROGRAM APPLIED TO A TENSQUARE-MILE AREA WITHIN AN UNTREATED COUNTY.

W J Mistic B M Covington

*J Econ Entomol* 61(1):186-190

Feb 1968 421 J822

*Anthonomus grandis*, *Aphis craccivora*, *Aphis gossypii*, Chemical control (insects), DDT, Emulsions, *Heliothis zea*, Rainfall, Toxaphene. Toxaphene-DDT emulsion concentrate, commercially formulated, was used.

Abstract

473-69

# CONTROL OF BOLLWORM ADULTS ON COTTON WITH INSECTICIDES.

E R Mitchell H R Agee H M Taft

*J Econ Entomol* 58(5):1030-1031

Oct 1965 421 J822

Carbaryl, Cotton, DDT, *Heliothis zea*, Methyl parathion.

474-69

# THE DAMAGE BROUGHT ABOUT BY PHLOEOTRIBUS. (FR)

A Moretini

*Inform Oleicoles Inter (N S 42, APR-JUN):*65-72

1968 80 IN3

Aldrin, Benzene hexachloride, Chemical control (insects), Chlordane, Coleoptera, DDT, Insect biology, Insecticides, *Liothrips oleae*, Olives, *Phloeotribus*.

475-69

# NOTE ON THE CONTROL OF GALL-FLY (ASPHONDYLIA SESAMI FELT.) ON SESAME.

S V Muhammad N R Chandrasekharan N

Srinivasulu

*Indian J Agr Sci* 38(4):666-667

Aug 1968 22 AG831

*Asphondylia sesami*, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, DDT, Endrin, Gall-making insects, Organophosphorus compounds, Parathion, Sesame.

Of the insecticides tested, BHC dust at ten per cent proved most effective in controlling the gall fly, *Asphondylia sesami*, on sesame plants.

476-69

# LOSS OF CHLORINATED HYDROCARBON INSECTICIDES FROM SOIL SURFACE IN THE FIELD.

M S Mulla

*J Sci Food Agr* 12(1):1-16-5

Jan 1961 382 SO12

Aldrin, Biological assay, Chloropidae, Culicidae, DDT, Endrin, SD 4402.

477-69

# RICE LEAFHOPPERS.

S Nasu

*Baltimore, John Hopkins Press.* 493-523 REF

1967 SB608.R559

Chemical control (insects), Chlorinated hydrocarbons, Cicadellidae, DDT, Insect morphology, Insect taxonomy, Malathion, Organophosphorus compounds, Parathion, Rice, Seasonal variation, Virus diseases (plants).

478-69

# CUTWORMS AND ARMYWORMS.

*Agr Gaz New S Wales* 78(PT 4):230-233

Apr 1967 23 N472

Carbaryl, Chemical control (insects), Cultural control (insects), DDT, Natural control (insects), Noctuidae, Trichlorfon.

Prevention and chemical and cultural controls for army and cutworms in Australian crops are discussed.

479-69

# FIFTY YEARS OF RESEARCH ON THE PINK BOLLWORM IN THE UNITED STATES.

L W Noble

*U S D A Agr Handb* 357:62P REF

Mar 1969 1 AG84AH

Azinphosmethyl, Biological control (insects), Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Cotton, Cotton ginning, Cultural control (insects), DDT, Formulations, Insect biology, Insect pests, Insect rearing, Insect traps, Insecticides, Organophosphorus compounds,

Parasitic insects, *Pectinophora gossypiella*, Plant insect resistance, Predaceous insects, Research, Sterilization.

480-69

# CONTROLLING PEACH YELLOWS IN A PEACH BREEDING PROGRAM.

G D Oberle S A Wingard

*Hortscience* 2(2,SUMMER):55-56

1967 SB1.H6

Chemical control (pests), Chlorinated hydrocarbons, Cicadellidae, Dieldrin, DDT, Insect vectors, *Macropsis trimaculata*, Peaches, Plant breeding, Plant protection, Virus diseases (plants), Yellows.

481-69

# EFFECTS OF VARIOUS WATER VOLUMES ON THE EFFECTIVENESS OF METHYL PARATHION-DDT, IN CONTROLLING THE COTTON BOLL WEEVIL, ANTHONOMUS GRANDIS.

A D Oliver L W Sloane

*J Sci Food Agr* 15(9):11-132-6

Sep 1964 382 SO12

*Anthonomus grandis*, Cotton, DDT, Methyl parathion, Spraying.

482-69

# THE PRINCIPLE INSECT PESTS OF BEETS AND THE MEANS OF THEIR CONTROL IN TURKEY. (FR)

M Ozer

*Ankara Univ Ziraat Fak Yayinlari* (296):54P REF

1967 107 AN42

Beets, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, DDT, Insect biology, Insect morphology, Insect pests, Organophosphorus compounds, Zoogeography.

Many pests belonging to the following orders are discussed: Coleoptera, Lepidoptera, Diptera, Orthoptera, Thysanoptera and Homoptera.

483-69

# COUNTERING THE CASTOR SEMI-LOOPER.

Y D Pande

*Indian Farming* 17(6):23,25

Sep 1967 22 IN283

*Achaea janata*, Benzene hexachloride, Castor beans, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), DDT, Endrin, Lead arsenate.

The life cycle and control of the castor semi-looper (*Achaea janata*) is discussed. Plowing of effected fields after harvest, and destruction of wild (volunteer) plants together with the application of DDT, HCH, endrin, or lead arsenate are the recommended control measures.

484-69

# ESSAY ON INSECTICIDAL TREATMENTS ON THE APPLE FRUIT FLY, RHAGOLETIS POMONELLA (WALSH) IN SOUTHWEST QUEBEC. (FR)

R O Paradis

*Entomol Soc Quebec Ann* 13(1):54-64 REF

Jan 1968 420 EN822

Apples, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Dimethoate, DDT, Insecticide application, Organophosphorus compounds, Plant pest control, *Rhagoletis pomonella*. English abstract

485-69

# INCREASED TOLERANCE OF THE BOLL WEEVIL AND COTTON FLEAHOPPER TO SOME CHLORINATED HYDROCARBON INSECTICIDES IN CENTRAL TEXAS IN 1958.

C R Parencia Jr C B Cowan Jr

*J Econ Entomol* 53(1):52-56, BIBL.

Feb 1960 421 J822

*Anthonomus grandis*, Azinphosmethyl, Carbaryl, Chlorine, Cotton, Dieldrin, DDT, Malathion, *Psallus seriatus*, Toxaphene.

486-69

# CONTROL OF SEVERAL EARLY-SEASON COTTON PESTS WITH INSECTICIDES.



- C R Parencia C B Cowan Jr J W Davis  
*J Econ Entomol* 53(6):1051-1054, 4 REFS., 3 TABS.  
Dec 1960 421 J822  
Anthonomus grandis, Azinphosmethyl, Bayer 25141, Bidrin, Cotton, Dieldrin, Dimethoate, DDT, Frankliella, Methyl parathion, Terpene polychlorinates, Toxaphene.
- 487-69  
LOW VOLUME AERIAL APPLICATIONS OF DDT TO COTTON IN CENTRAL TANZANIA 1966.  
R H Parish I A D Robertson  
*Arusha Trop Pesticides Res Inst Misc Rep* 620:12 P.  
Jun 1967 423.92 G7922  
Aerial spraying, Aircraft, Cotton, DDT, Insect control, Insecticides, Pesticide application, Time.
- 488-69  
NAVY BEAN PESTS.  
T Passlow  
*Queensland Agr J* 94(12):762-763  
Dec 1968 23 Q33  
Caterpillars, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect pests, Insecticides, Kidney beans.
- 489-69  
FIELD EXPERIMENTS WITH SEVERAL INSECTICIDAL SPRAYS AGAINST THE BOLL WEEVIL AND BOLLWORM.  
T R Pfrimmer E P Lloyd M E Merkl R E Furr  
*J Econ Entomol* 53(5):711-714, TABS.  
Oct 1960 421 J822  
Anthonomus grandis, Azinphosmethyl, Carbaryl, Cotton, Dicapthon, DDT, Fenthion, Heliothis zea, Malathion, Methyl parathion, Toxaphene.
- 490-69  
CONTROL OF PECAN NUT CASEBEARER.  
A M Phillips  
*Fla Entomol* 47(1):45-47, 3 REFS., 2 TABS.  
Mar 1964 420 F662  
Acrobasis, DDT, Malathion, Parathion, Pecans.
- 491-69  
SOME EFFECTS OF DDT ON PULVINARIA VITIS (L.) (HOMOPTERA: COCCIDAE) INFESTING PEACH IN ONTARIO.  
J H H Phillips W L Putman D C Herne  
*Can Entomol* 94(5):449-458  
May 1962 421 C16  
DDT, Grapholitha molesta, Peaches.
- 492-69  
COTTON FIBER QUALITY AS RELATED TO SOME COTTON INSECT CONTROL PROGRAMS AND TIME OF FRUIT SETTING.  
L Phillips A D Oliver L Finley  
*J Econ Entomol* 54(6):1131-1132  
Dec 1961 421 J822  
Azinphosmethyl, Cotton, DDT, Fibers, Methyl parathion, Toxaphene.
- 493-69  
MORPHOLOGICAL-BIOLOGICAL REPORT OF THE CABBAGE MAGGOT HYLEMIA BRASSICAE (BCH.) AND EXPERIMENTS IN CHEMICAL CONTROL. (IT)  
R Priore  
*Portici Lab Entomol Agr Filippo Silvestri Boll* 24:169-203  
1966 420 P82B  
Aldrin, Chemical control (insects), Chlordane, Chlorinated hydrocarbons, DDT, Food plants, Hylemya brassicae, Insect biology, Insect morphology, Lindane, Organophosphorus compounds, Parathion. DDT tested alone and mixed with parathion.  
English summary.
- 494-69  
INSECTICIDES AND PEST CONTROL.  
J Quinn  
*New Zeal J Agr* 117(3):74-75  
Sep 1968 23 N48J  
Costelytra zealandica, DDT, Insect control, Insecticide application, Insecticide residues, Insecticides, Pastures.  
A new insecticide and various residue and application problems were presented at a recent meeting for weed and pest control.
- 495-69  
COMPATIBILITY STUDIES ON BACILLUS THURINGIENSIS BERLINAR WITH CHLORINATED HYDROCARBONS.  
M R Rajasekharan R N Pillai N R Rao E Dharmaraju  
*Andhra Agr J* 14(5):167-168  
1967 34.2 AN4  
Bacillus thuringiensis, Bacteria, Benzene hexachloride, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Endosulfan, Endrin, Toxicology.
- 496-69  
THE INFLUENCE OF INFESTATION BY EARLY SHOOT BORER CHILOTRAEA INFUSCATELLUS SN. ON SHOOT PRODUCTION AND YIELD OF SUGARCANE.  
C S Rao  
*Andhra Agr J* 14(5):131-142 REF  
1967 34.2 AN4  
Benzene hexachloride, Chemical control (insects), DDT, Insect control, Plant physiology, Pyralidae, Sugarcane.
- 497-69  
RECENT DEVELOPMENTS IN AND FUTURE PROSPECTS FOR THE CHEMICAL CONTROL OF THE RICE STEM BORER IN INDIA.  
Y S Rao P Israel  
*Baltimore, John Hopkins Press.* 317-324 REF  
1967 SB608.R5S9  
Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect outbreak forecasting, Larvae, Pyralidae, Rice.
- 498-69  
OBSERVATIONS ON SOYBEAN INSECTS IN MARYLAND.  
R H Ratcliffe T L Bissell W E Bickley  
*J Econ Entomol* 53(1):131-133, 14 REFS.  
Feb 1960 421 J822  
DDT, Heliothis zea, Malathion, Maryland, Phorate, Soybeans, Tetranychus, Thrips.
- 499-69  
FIELD EXPERIMENTS ON THE INSECTICIDAL CONTROL OF INSECTS ATTACKING PEAS, SNAP AND LIMA BEANS.  
R H Ratcliffe L P Ditman J R Young  
*J Econ Entomol* 53(5):818-820, 4 REFS.  
Oct 1960 421 J822  
Beans, Carbaryl, Dilan, Dimethoate, DDT, Endosulfan, Ethion, Heliothis zea, Lima beans, Methyl trithion, Naled, Phosphamidon.
- 500-69  
SOME RECOMMENDATIONS FOR THE CONTROL OF PERFORATORS OF SEEDS OF ANONACEAE (BEPHRATA SP. ORDER HYMENOPTERA). (SP)  
J A Reyes Q  
*Agr Trop* 23(8):530-531  
Aug 1967 26 AG8  
Chemical control (insects), DDT, Eurytomidae, Insect control, Malathion, Seeds, Trichlorfon.
- 501-69  
STEM APPLICATIONS OF AZODRIN FOR CONTROL OF THE COTTON FLEAHOPPER.  
R L Ridgway B G Reeves C B Cowan L H Wilkes D A Lindquist  
*J Econ Entomol* 59(2):315-318, TABS.  
Apr 1966 421 J822  
Azodrin, Cotton, DDT, Insecticide application, Systemic insecticides, Toxaphene, Trichlorfon.
- 502-69  
CONTROL OF THE TARNISHED PLANT BUG, LYGUS LINEOLARIS, ON BIRDSFOOT TREFOIL GROWN FOR SEED.  
R L Ridgway G G Gyrisco  
*J Econ Entomol* 54(2):244-246  
Apr 1961 421 J822  
Aldrin, Birdsfoot trefoil, DDT, Lygus, Parathion, Toxaphene.
- 503-69  
APPLE CHALCID, TORYMUS VARIANS (WLK.), (HYMENOPTERA: TORYMIDAE), IN QUEBEC. (FR)  
I Rivard  
*Phytoprotection* 48(2):68-73 REF  
Jun 1967 464.8 P566  
Apples, Carbaryl, Chalcididae, Chemical control (insects), DDT, Insect eggs, Insect pests, Malathion, Seedlings, Torymus varians. English summary.
- 504-69  
EFFECTS OF SOIL INSECTICIDES ON APPLE TREES AND RESULTING EFFECT ON MITE NUTRITION.  
J G Rodriguez H H Chen W T Smith Jr  
*J Sci Food Agr* 12(1):1-18-2  
Jan 1961 382 SO12  
Apples, Benzene hexachloride, Dieldrin, DDT, Insect nutrition, Tetranychidae.
- 505-69  
EFFECTS OF SOIL INSECTICIDES AND ABSORBENTS ON PLANT SUGARS AND RESULTING EFFECT ON MITE NUTRITION.  
J G Rodriguez D E Maynard W T Smith Jr  
*J Sci Food Agr* 12(1):1-16-7  
Jan 1961 382 SO12  
DDT, Insect nutrition, Soybeans, Sugars, Tetranychidae.
- 506-69  
EFFECTS OF SOIL INSECTICIDES AND ABSORBENTS ON PLANT SUGARS AND RESULTING EFFECT ON MITE NUTRITION.  
J G Rodriguez D E Maynard W T Smith Jr  
*J Econ Entomol* 53(4):491-495, BIBL  
Aug 1960 421 J822  
Beans, DDT, Insect nutrition, Insecticides, Mites, Soils, Soybeans, Sugars, Tetranychus.
- 507-69  
THE INSECTS INJURIOUS TO POTATOES. (IT)  
G Russo  
*Portici Lab Entomol Agr Filippo Silvestri Boll* 24:227-229  
1966 420 P82B  
Carbaryl, Chemical control (insects), Chlordane, DDT, Insect pests, Lindane, Mites, Parathion, Plant nematodes, Potatoes. DDT used alone and mixed with parathion.  
English summary.
- 508-69  
THE INFLUENCE OF SEASONAL DDT APPLICATIONS UPON ARTHROPOD POPULATIONS IN JACK PINE STANDS.  
V L Sapla  
*Diss Abstr Sect B* 27 (12,PT.1), 4609B  
Jun 1967 Z5055.U49D53  
Arthropoda, DDT, Pinus banksiana.
- 509-69  
PESTS OF LEGUME SEED CROPS IN NORTH QUEENSLAND.  
G W Saunders  
*Queensland Agr J* 94(12):725-730  
Dec 1968 23 Q33  
Agromyza phaseoli, Aphididae, Caterpillars, Chemical control (insects), DDT, Hyacinth dolichos, Insect pests, Insecticides, Legumes, Mites, Nematodes, Pseudococcidae, Seeds.
- 510-69  
CHEMICAL CONTROL OF DROSICHA MANGIFERAE (GREEN), A SERIOUS PEST OF CITRUS SPP. IN MADHYA PRADESH.  
D K Saxena R R Rawat  
*Indian J Entomol* 30(1):66-68  
Mar 1968 420 IN23

Chemical control (insects), Chlorinated hydrocarbons, Citrus, Diazinon, DDT, Drosicha mangiferae, Endrin, Insecticides, Malathion, Organophosphorus compounds, Parathion.

511-69

# THE REDUCTION OF INSECT-CAUSED APICAL SEEDINESS IN STRAWBERRIES.

G A Schaefer

*J Econ Entomol* 59(3):698-706

Jun 1966 421 J822

Apical seediness, DDT, Insecticides, Lygus lineolaris, Strawberries.

512-69

# BIOLOGY AND CONTROL OF THE MORNING-GLORY LEAF MINER, BEDELLIA SOMNULENTELLA, ON SWEET POTATOES.

H H Shorey L D Anderson

*J Econ Entomol* 53(6):1119-1122, 4 REFS.

Dec 1960 421 J822

Bedellia, Diazinon, DDT, Malathion, Parathion, Sweetpotatoes, Toxaphene, Trichlorfon.

513-69

# BIOLOGY AND CONTROL OF MORNING-GLORY LEAF MINER, BEDELLIA SOMNULENTELLA, ON SWEET POTATOES.

H H Shorey L D Anderson

*J Sci Food Agr* 12(5):1-227-5

May 1961 382 SO12

Bedellia, Biological control (insects), Diazinon, DDT, Malathion, Parathion, Sweetpotatoes, Toxaphene.

514-69

# EFFECT OF CLIMATIC FACTORS ON THE SUSCEPTIBILITY OF INSECTS TO INSECTICIDES.

Harcharan Singh

*Plant Protect Bull* 18(2):18-26 REF

1966 421 P69

Anthonomus grandis, Climate, Dew, DDT, Humidity, Insecticide resistant insects, Insecticides, Light, Plant protection, Rainfall, Temperature, Wind.

515-69

# CONTROL OF THE PEACH TREE BORER ON YOUNG PEACH TREES BY PREPLANT TREATMENT WITH DDT, DIELDRIN, AND ENDOSULFAN.

E H Smith

*J Econ Entomol* 56(4):463-465, TABS.

Aug 1963 421 J822

Dieldrin, DDT, Endosulfan, Peaches, Preplant treatment, Sanninoidea exitiosa.

516-69

# SOME ECOLOGICAL OBSERVATIONS AND RESULTS OF THE CONTROL OF ARGYRESTHIA FUNDELLA F. R. (SE)

I Spaic

*Sumarski List* 92(5/6 MAY-JUN):165-188 REF

1968 99.8 SU6

Aerial spraying, Argresthia fundella, Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, Dieladocerus, DDT, Eulophidae, Gelis, Ichneumonidae, Insect biology, Insect ecology, Insecticides, Parasitic insects, Pine needles, Tetrastichus, Yponomeutidae, Zoogeography. German summary.

517-69

# BRINJAL LEAF ROLLER.

B P Srivastava

*Indian Farming* 16(2):17,35

May 1966 22 IN283

Benzene hexachloride, Chemical control (insects), DDT, Tortricidae.

The life cycle and the control of the Brinjal leaf roller of India with DDT and BCH is discussed.

518-69

# DON'T TAKE LIGHTLY THESE BRINJAL BORERS.

V K Srivastava B P Khare

*Indian Hort* 12(2 JAN-MAR):34

1968 80 IN23

Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Dusting, Eggplant, Endrin, Euzophera peticella, Insecticides, Leucinodes orbonalis, Lindane, Pyralidae, Spraying.

519-69

# CONTROL OF THE CORN EARWORM ON SWEET CORN IN EASTERN NEBRASKA.

R Staples S D Kindler B H Kantack

*J Econ Entomol* 61(3):774-776

Jun 1968 421 J822

Bacillus thuringiensis, Biochemistry, Carbaryl, Corn, DDT, Heliothis zea. Chemicals used were: zectran, matacil, bayer 37344, isolan, dimetilan, UC-8305, dioxathion.

520-69

# PESTS AND DISEASES THREATENING OUR CHERRIES.

J N Steed

*S Australia J Agr* 70(6):202-208

Jan 1967 23 SO84

Chemical control (pests), Cherries, DDT, Myzus cerasi, Plant diseases, Slugs, Tetranychus urticae.

521-69

# EFFECTS OF DYLOX AND OTHER INSECTICIDES ON ENTOMOPHAGOUS INSECTS ATTACKING FIELD CROP PESTS IN CALIFORNIA.

V M Stern R Van Den Bosch H T Reynolds

*J Econ Entomol* 53(1):67-72, BIBL., TABS.

Feb 1960 421 J822

California, DDT, Entomophagous insects, Field crops, Heptachlor, Insecticide resistant insects, Parathion, Predaceous insects, Toxaphene, Trichlorfon.

522-69

# FIELD TESTS WITH VARIOUS INSECTICIDES FOR THE CONTROL OF LYGUS BUGS AND THE CORN EARWORM ON LIMA BEANS.

M W Stone F B Foley R E Campbell

*J Econ Entomol* 53(3):397-403, BIBL., TABS.

Jun 1960 421 J822

Dieldrin, DDT, Endrin, Heliothis zea, Lima beans, Lygus, Toxaphene.

523-69

# FURTHER EXPERIENCE OBTAINED IN STUDIES ON DISPERSAL FLIGHTS OF MELIGETHES AENEUS F., MARKED WITH P32 (COLEOPTERA).

L Taimr J Sedivy E Bergmannova I Hanker

*Acta Ent Bohemoslov* 64(5):325-332

1967 420 C33

DDT, Insect flight, Insect migration, Meligethes aeneus, Phosphorus isotopes, Radioactive tracers, Rape, Taraxacum.

524-69

# PERFORMANCE OF SEVIN AGAINST GRAPE BERRY MOTH.

E F Taschenberg G M Parsons H H Moorefield

*J Econ Entomol* 53(5):856-859, 7 REFS., 6 TABS.

Oct 1960 421 J822

Carbaryl, Cholinesterases, DDT, EPN, Grapes, N-trichloromethyl-mercaptopthalimide, Parathion, Phaltan.

525-69

# PERFORMANCE OF SEVIN AGAINST GRAPE BERRY MOTH.

E F Taschenberg G M Parsons H H Moorefield

*J Sci Food Agr* 12(4):1-171-1

Apr 1961 382 SO12

Azinphosmethyl, Carbaryl, DDT, Grapes, Paralothesia.

526-69

# PASTURE COCKCHAFER CONTROL INTERIM REVISED CONTROL RECOMMENDATION.

Tasmanian J Agr 38(2):147-148

May 1967 23 T182T

Aphodius, Azinphosmethyl, Carbaryl, Chemical control (insects), DDT, Insecticide residues, Lindane, Scarabaeidae.

Azinphosmethyl and carbaryl are recommended for the control of the pasture cockchafer, Aphodius and lieu of DDT lindane in order to reduce the level of field pesticide residues.

527-69

# CONTROL OF SPARGANTHIS SULFURANA ON CRANBERRY.

W E Tomlinson Jr

*J Econ Entomol* 54(4):811, 8 REFS.

Aug 1961 421 J822

Azinphosmethyl, Carbaryl, Cranberries, Diazinon, DDT, Ethion, Parathion, Trichlorfon.

528-69

# THE CICADELLE EMPOASCA FLAVESCENS AND THE GRILL OF GRAPEVINES IN THE SOUTH-WEST OF FRANCE. (FR)

J Touzeau

*Phytoma* 20(200 JUL-AUG):31-35 REF

1968 464.8 P563

Carbaryl, Crop losses, Crop varieties, DDT, Empoasca flavescens, Formothion, Grape vineyards, Insect biology, Insect identification, Insect pests, Insecticides, Resistance, Zoogeography.

529-69

# LABORATORY STUDIES ON THE EFFECTIVENESS OF CHIPMAN R-6199 AGAINST SOME COTTON PESTS.

C H Tsao G T Bottger

*J Econ Entomol* 53(1):103-106, BIBL., TABS.

Feb 1960 421 J822

Anthonomus grandis, Cotton, DDT, Endrin, O,O-diethyl S(2-diethylamino)-ethyl phosphorothioate, Tetranychidae.

530-69

# BIOLOGY AND CONTROL OF THE APPLE SEED CHALCID IN NORTH CAROLINA.

G F Turnipseed

*J Econ Entomol* 53(1):166, BIBL.

Feb 1960 421 J822

Biology, Carbaryl, Crabapples, Demeton, Dioxathion, DDT, Malathion, Phorate, Seedlings, Tormus.

531-69

# THE COTTON LEAF PERFORATOR AND ITS CONTROL IN ARIZONA.

D M Tuttle G P Wene L W Sheets

*J Econ Entomol* 54(1):67-70

Feb 1961 421 J822

Arizona, Bucculatrix, Carbaryl, Cotton, Dilan, Dimethoate, DDT, Endrin, Malathion, Methanophthalan, 1,3,4,6,7,8,8-, Methyl parathion, Nalcd, SD 4402, Terpene polychlorinates, Toxaphene.

532-69

# COTTON LEAF PERFORATOR AND ITS CONTROL IN ARIZONA.

D M Tuttle G P Wene L W Sheets

*J Sci Food Agr* 12(6):1-281-6

Jun 1961 382 SO12

Arizona, Bucculatrix, DDT, Terpenes.

533-69

# INVESTIGATIONS ON THE BIOLOGY AND CONTROL OF MELOLONTHA MELOLONTHA IN HAZELNUT PLANTATIONS. (TU)

I Ural

*Bitki Koruna Bulteni* 8(1):3-38

Mar 1968 464.8 B542

Aldrin, Chemical control (insects), DDT, Filberts, Heptachlor, Insect biology, Insect nutrition, Insect pests, Lindane, Melolontha melolontha, Plantations, Sex ratios. English summary.

534-69

# A NOTE ON THE CONTROL OF THE SEMICOOPER, ACHAEA JANATA L., ON CASTOR.

S M Vittal R Saroja

*Madras Agr J* 55(4):200-202

Apr 1968 22 M262



Achaea janata, Benzene hexachloride, Carbamates, Carbaryl, Carbofenothion, Castorbeans, Chemical control (insects), DDT, Endrin, Parathion, Plant protection, Trichlorfon.

535-69

**CONTROL OF BOLL WEEVILS RESISTANT TO CHLORINATED HYDROCARBONS.**

J K Walker Jr R L Hanna

*J Econ Entomol* 53(2):228-231, BIBL.

Apr 1960 421 J822

Anthonomus grandis, Carbaryl, Cotton, DDT, Gothion, Hydrocarbons.

536-69

**INSECTICIDE STUDIES ON THE MAIZE STALK BORDER, BUSSEOLA FUSCA (FULLER) IN E. AFRICA.**

P T Walker

*J Sci Food Agr* 12(2):1-76-2

Feb 1961 382 SO12

Busseola, Cornstalk borer, DDT, Endrin.

537-69

**DDT-C14 TRANSLOCATION IN ALFALFA.**

G W Ware

*J Econ Entomol* 61(5):1451-1452

15 Oct 1968 421 J822

Alfalfa, Biochemistry, Carbon isotopes, DDT, Injections, Insecticides, Plant translocation, Roots, Seedlings, Soil series, Wheat.

538-69

**CONTROL OF THE BEET ARMYWORM ON COTTON IN ARIZONA.**

G P Wene L W Sheets

*J Econ Entomol* 54(1):192-193

Feb 1961 421 J822

Arizona, Cotton, DDT, Methyl parathion, Naled, Trichlorfon.

539-69

**BARK BEETLES.**

E Wertheim

*Calif Horticul Soc J* 28(1):130-132

Jan 1967 81 C1293

Chemical control (insects), Chlorinated hydrocarbons, DDT, Fungus diseases (plants), Insect pests, Lindane, Plant protection, Scolytidae, Trees.

540-69

**GIANT COFFEE LOOPER, ASCOTIS SELENARIA RECIPROCARIA, AND ITS CONTROL.**

P E Wheatley

*J Sci Food Agr* 15(10):11-185-3

Oct 1964 382 SO12

Ascotis, Coffee, DDT, Pyrethrum.

541-69

**THE USE OF ORGANOCHLORINE INSECTICIDES AND POSSIBLE ALTERNATIVES AGAINST LEATHERJACKETS.**

J H White

*Plant Pathol* 16(2):83-88

Jun 1967 464.8 P692

Aldrin, Barley, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, DDT, Food contamination, Insecticides, Lindane, Paris green, Tipulidae, Wheat.

Abstract

542-69

**INSECTICIDES AND INSECTICIDE-OIL COMBINATIONS FOR CORN EARWORM, BOLL WEEVIL, AND COWPEA CURCULIO CONTROL.**

D A Wolfenbarger

*Fla Entomol* 48(2):101-109, 4 REFS., 9 TABS.

Jun 1965 420 F662

Anthonomus grandis, Azinphosmethyl, Chalcodermus, DDT, Heliothis zea, Methyl parathion, Paraffin oils, Parathion, Toxaphene.

543-69

**INSECTICIDE SPRAYS FOR CONTROL OF INSECTS ON VARIOUS VEGETABLE CROPS.**

D A Wolfenbarger M F Schuster J A Harding

*Fla Entomol* 48(1):17-24, 5 REFS., 6 TABS.

Mar 1965 420 F662

Aphididae, Bidrin, Cabbage, Corn, DDT, Endrin, Heliothis zea, Parathion, Trichoplusia, Zectran.

544-69

**BRIEF HISTORY OF APHID CONTROL ON POTATOES IN SOUTH FLORIDA, 1946-59.**

D O Wolfenbarger

*J Econ Entomol* 53(3):403-405, BIBL.

Jun 1960 421 J822

DDT, Endosulfan, Parathion, Potatoes, South Florida, Toxaphene.

545-69

**EFFECT OF DDT ON CONTROL OF CORN EARWORMS IN SWEET CORN ENTRIES SELECTED FOR VARYING RESISTANCE.**

J R Young K J Starks

*J Econ Entomol* 60 (4):01091-1094

15 Aug 1967 421 J822

Chemical control (pests), DDT, Heliothis zea, Plant pest resistance, Sweetcorn.

Abstract

## NEMATODES

546-69

**ONE HUNDRED PLANES TO SPRAY BUDWORM IN NEW BRUNSWICK.**

*Agr Chem* 15(5):84

May 1960 381 AG8

Aerial spraying, DDT, New Brunswick, Salmon.

547-69

**HENLOCK LOOPER CONTROL SPRAYING CALLED BEST PLANNED AND SAFEST FOREST PROJECT.**

*Agr Chem* 18(8):55-57

Aug 1963 381 AG8

Aerial spraying, Carbaryl, DDT, Fish, Geometridae, Tsuga.

548-69

**A COMPARISON OF THE TOXICITY OF INSECTICIDES FOR THE CONTROL OF CORN EARWORM ON SWEET CORN.**

L D Anderson H T Reynolds

*J Econ Entomol* 53(1):22-24, BIBL., PL.

Feb 1960 421 J822

Azinphosmethyl, Carbaryl, Diazinon, DDT, Endosulfan, Heptachlor, Isodrin, Sweetcorn, Toxicology, Trichlorion.

549-69

**THE BEET ARMYWORM, SPODOPTERA EXIGUA, AN ECONOMIC PEST OF CITRUS IN CALIFORNIA.**

E L Atkins Jr

*J Sci Food Agr* 12(1):1-19-2

Jan 1961 382 SO12

Citrus, DDT, Parathion, Spodoptera.

550-69

**CONTROL OF THE POTATO TUBERWORM IN POTATOES.**

O G Bacon

*J Econ Entomol* 53(5):868-871, 8 REFS.

Oct 1960 421 J822

Azinphosmethyl, Calcium arsenate, Carbaryl, Dimethoate, DDT, Endosulfan, Endrin, Gnorimoschema, Potatoes.

551-69

**THE USE OF BALSAM FIR SHOOT ELONGATION FOR TIMING SPRUCE BUDWORM AERIAL SPRAY PROGRAMS IN THE LAKE STATES.**

J L Bean

*J Econ Entomol* 54(5):996-1000, 4 REFS., 5 FIGS.

Aug 1961 421 J822

Abies, Choristoncra, DDT.

552-69

**TREATED BAGS FOR CONTROL OF THE CORN EARWORM AND FALL ARMYWORM.**

C C Blickenstaff L F Bauman

*J Econ Entomol* 54(3):587-591, 2 REFS.

Jun 1961 421 J822

Aldrin, Bags, Chlordane, Corn, Dieldrin, DDT, Heliothis zea, Heptachlor, Laphygma, Toxaphene.

553-69

**INSECTICIDAL CONTROL FO THE PINE LOOPER IN GREAT BRITAIN. I. AERIAL SPRAYING.**

M Crooke

*J Sci Food Agr* 12(2):1-77-7

Feb 1961 382 SO12

Aerial spraying, DDT, Geometridae, Pinus.

554-69

**FACTORS INVOLVED IN DIFFERENTIAL SUSCEPTIBILITY OF CORN EARWORM LARVAE TO DDT.**

R T Gast

*J Econ Entomol* 54(6):1203-1206, 5 REFS.

Dec 1961 421 J822

Corn, DDT, Heliothis zea.

555-69

**EFFECTIVENESS OF DDT FOR CABBAGE CATERPILLAR CONTROL IN INDIANA, 1945 TO 1960.**

G E Gould

*J Econ Entomol* 54(3):475-478, 7 REFS.

Jun 1961 421 J822

Cabbage, DDT, Endrin, Toxaphene.

556-69

**MAIZE EARWORM OVIPOSITION AND THE EFFECT OF DDT ON THE EGG PREDATOR COMPLEX IN MAIZE SILK.**

F P Harrison

*J Sci Food Agr* 12(5):1-224-8

May 1961 382 SO12

DDT, Heliothis zea, Ovipositors.

557-69

**CORN EARWORM OVIPOSITION AND THE EFFECT OF DDT ON THE EGG PREDATOR COMPLEX IN CORN SILK.**

F P Harrison

*J Econ Entomol* 53(6):1088-1094, 10 REFS.

Dec 1960 421 J822

Corn, DDT, Eggs, Heliothis zea, Mortality, Oviposition, Predaceous insects.

558-69

**CAN WE CONQUER THE 'MIGHTY' MITES .**

L R Jeppson

*Farm Chem* 130(9):38-40, 118

Sep 1967 57.8 AM3

Acaricides, Agricultural outlook, Chemical control (insects), DDT, Mites, Predaceous insects, Research.

559-69

**SEASONAL HISTORY AND RESPONSE TO INSECTICIDES OF HELIOTHIS SPECIES ON COTTON.**

R J Ledbetter

*Diss Abstr Sect B* 28(8):3323B

Feb 1968 ZS055.U49D53

Cotton, DDT, Endrin, Genetics, Heliothis, Larvac, Seasons.

560-69

**FIELD EXPERIMENTS WITH SEVERAL INSECTICIDAL SPRAYS AGAINST THE BOLL WEEVIL AND BOLLWORM.**

E P Lloyd M E Merkl R F Furr

*J Sci Food Agr* 12(3):1-129-2

Mar 1961 382 SO12

Anthonomus grandis, Azinphosmethyl, Carbaryl, DDT, Heliothis zea, Malathion, Methyl parathion.

561-69

**INCIDENCE OF PINK BOLLWORM RESISTANCE TO DDT.**

## CROP PROTECTION

562-69

W L Lowry C H Tsao

*J Econ Entomol* 54(6):1209-1211, 3 REFS.

Dec 1961 421 J822

Cotton, DDT, Mexico, Moths, *Pectinophora gossypiella*.

562-69

**THE NAVEL ORANGEWORM IN NORTHERN CALIFORNIA.**

A E Michelbacher C S Davis

*J Econ Entomol* 54(3):559-562, 10 REFS.

Jun 1961 421 J822

Azinphosmethyl, California, Carbaryl, DDT, Dryness, Heat, Paramyelois, Walnuts.

563-69

**COTTON PESTS EXHIBIT RESISTANCE TO DDT.**

T L Pate J R Brazzel

*Agr Chem* 19(8):34-36, 2 TABS.

Aug 1964 381 AG8

Cotton, DDT, *Heliothis zea*, Insecticide resistant insects.

564-69

**CONTROL OF ARMY CUTWORMS IN ALFALFA DURING 1959.**

R E Pfadt

*J Econ Entomol* 53(2):319-320, BIBL.

Apr 1960 421 J822

Alfalfa, Dieldrin, Dilan, DDT, Endrin.

565-69

**EXPERIMENTS ON CONTROL OF THE SUGAR-BEET WIREWORM IN SOUTHERN CALIFORNIA BEAN FIELDS.**

M W Stone L D Anderson

*J Econ Entomol* 53(1):176-177, BIBL.

Feb 1960 421 J822

Aldrin, Chlordane, Dieldrin, DDT, Endrin, Heptachlor, *Limoniis californicus*, Sugar beet.

566-69

**AERIAL FOREST SPRAYING AGAINST SPRUCE BUDWORM- A PROBLEM OF MUTUAL INTEREST IN CANADA AND THE UNITED STATES.**

F E Webb

*J Econ Entomol* 53(4):631-633

Aug 1960 421 J822

Aerial spraying, Choristoneura, DDT, Picea.

567-69

**SALT-MARSH CATERPILLAR CONTROL ON COTTON IN ARIZONA.**

G P Wene D M Tuttle L W Sheets

*J Econ Entomol* 53(1):78-80, BIBL., TABS.

Feb 1960 421 J822

Arizona, Carbaryl, Cotton, Diazinon, Dilan, DDT, Endrin, Estigmenne acraea, Malathion, Methyl parathion, Parathion, Sodium fluosilicate, Toxaphene, Trichlorion.

568-69

**THE EFFECT OF PLANT TYPE UPON CORN EARWORM CONTROL IN SWEET CORN.**

J W Wilson E V Walter

*J Econ Entomol* 54(4):689-692, 5 REFS.

Aug 1961 421 J822

Corn, Crop varieties, DDT, *Heliothis zea*.

## WEEDS

569-69

**CROP SEEDLING UPTAKE OF DDT, DIELDRLIN, ENDRIN, AND HEPTACHLOR FROM SOILS.**

M L Beall R G Nash

*Agron J* 61(4):JUL-AUG:571-575 REF

Aug 1969 4 AM34P

Absorption, Crops, Dieldrin, DDT, Endrin, Heptachlor, Insecticides, Pesticide residues, Seedlings.

## BIBLIOGRAPHY

570-69

**INFLUENCE OF CERTAIN INSECTICIDES APPLIED FOR THE CONTROL OF OSTRINIA NUBILALIS HBN. ON THE WEEDS OF TREATED SURFACES. (SE)**

G Pivar

*Zastita Bilja* 18(93/95):213-219

1967 464.8 Z1

Aerial spraying, Chemical control (insects), Chemical control (weeds), DDT, Herbicides, Insecticides, *Ostrinia nubilalis*, Weeds. French summary.

## OTHER PESTS

571-69

**FIELD STUDIES ON THE TOXICITY OF INSECTICIDES TO THE MOSQUITO FISH, GAMBUSIA AFFINIS.**

M S Mulla

*J Econ Entomol* 54(6):1237-1242, 23 REFS.

Dec 1961 421 J822

Bayer 25141, DDT, Fenthion, *Gambusia affinis*, Malathion, Parathion.

572-69

**PHYSICO-CHEMICAL STUDIES OF PESTICIDES. III. EFFECT OF SOAP ON THE BIOLOGICAL ACTIVITY OF DDT SUSPENSIONS.**

D K O'Neill

*J Sci Food Agr* 14(6):442-448, 13 REFS., 6 FIGS.

Jun 1963 382 SO12

Biological control (insects), DDT, Soap, *Tribolium*.

573-69

**CONTROL OF EARTHWORM.**

B N Saxen H G Khalsa

*Pesticides* 1(8):19-20 REF

Apr 1968 SB951.P43

Chinese soapberries, Chlorinated hydrocarbons, Copper sulfate, DDT, Earthworms, Plant extracts, Plant pest control, Soil sanitation.

574-69

**NEW CONTRIBUTIONS TO THE SUBJECT 'BIRDS AND AGRICULTURE'. (FR)**

H Sirlez

*Phytoma* 19(193):20-25

Dec 1967 464.8 P563

Birds, DDT, Fruit, Herbicides, Pesticides, Pigeons, Plant injuries, Plant protection, Population, Sparrows. The book, The protection of crops against birds, published by ACTA is reviewed in the first section of this article.

## LIVESTOCK PROTECTION

575-69

**ANTIRESISTANT FORM OF DDT IS SUCCESSFUL IN TESTS WITH FLIES.**

*Agr Chem* 16(12):21,23,70,72, 4 REFS.

Dec 1961 381 AG8

DDT, *Musca domestica*.

576-69

**ESTROGENIC ACTIVITY OF O,P'-DDT IN THE MAMMALIAN UTERUS AND AVIAN OVIDUCT.**

J Bitman H C Cecil S J Harris G F Fries

*Science* 162(3851):371-372 REF

18 Oct 1968 470 SCI2

Animal physiology, Biochemistry, Birds, DDT, Estrogens, Mammals, Reproduction, Uterus.

577-69

**THE EFFECT OF DDT ON REPRODUCTION IN MICE.**

M S Cannon L C Holcomb

*Ohio J Sci* 68(1):19-24 REF

Jan 1968 410 OH3

Animal histology, Biochemistry, Diet, DDT, Insecticides, Mice, Reproduction, Research.

578-69

**THE EFFECTS OF DDT ON A BREEDING POPULATION OF THE RUFOUSID TOWHEE (PIPILO E. ERYTHROPHthalmus LINNAEUS).**

F W Davis

*Diss Abstr Sect B* 29(1):410B

Jul 1968 Z5055.U49D53

Biochemistry, Birds, Breeding, DDT, Feeding, Insecticide residues, Lipids, Population.

579-69

**MISSISSIPPI DELTA WILDLIFE DEVELOPING RESISTANCE TO PESTICIDES.**

D E Ferguson

*Agr Chem* 18(9):32-34

Sep 1963 381 AG8

Animal adaptation, DDT, Pesticides, Wildlife.

580-69

**EFFECT OF SOME PESTICIDES ON THE ADRENAL GLANDS IN THE RAT.**

T S Foster

*Can J Biochem* 46(9):1115-1120 REF

Sep 1968 470 C16E

Adrenal glands, Biochemistry, Dieldrin, DDT, Dosage, Enzymes, Malathion, Pesticides, Rats, Steroids, TDE.

581-69

**EFFECTS OF FOREST SPRAYING WITH DDT ON AQUATIC INSECTS, FOOD OF SALMON AND TROUT, IN NEW BRUNSWICK.**

F P Ide

*Entomol Soc Ontario Proc* 91:39-40

1960 420 ON8

Animal ecology, Aquatic insects, Chemical control (insects), DDT, Forests, Insecticide residues, Spraying, Starvation.

582-69

**RELATION BETWEEN DDT IN DIETS OF LAYING BIRDS AND VIABILITY OF THEIR EGGS.**

F J S Jones D D B Summers

*Nature* 217(5134):1162

23 Mar 1968 472 N21

Biochemistry, Birds, Diet, DDT, Eggs, Feed, Insecticides, Metabolites, Poisoning, Toxins.

583-69

**PESTICIDE-INDUCED ENZYME BREAKDOWN OF STEROIDS IN BIRDS.**

D B Peakall

*Nature* 216(5114):505

04 Nov 1968 472 N21

Biochemistry, Birds, Chromatography, Dieldrin, DDT, Enzymes, Metabolism, Pesticides, Pigeons, Population, Steroids.

584-69

**RESIDUES IN MILK OF COWS FED RATIONS CONTAINING LOW CONCENTRATIONS OF FIVE CHLORINATED HYDROCARBON PESTICIDES.**

S Williams P A Mills R E McDowell

*J Sci Food Agr* 16(7):11-43-4

Jul 1965 382 SO12

Cattle, Dieldrin, DDT, Endrin, Heptachlor epoxide, Lindane, Milk, Pesticide residues, TDE.

## DISEASES

585-69

**SEED DRESSINGS AND GAME BIRDS.**

*Dublin, Plant Sciences And Crop Husbandry Div.* 18-19

1967 103 D852

Aldrin, Chlorinated hydrocarbons, DDT, Game birds, Lindane, Mercury compounds, Pheasants, Seed dressings.



**586-69**  
EFFECT OF SUBLETHAL DDT ON THE LATERAL LINE OF BROOK TROUT, SALVELINUS FONTINALIS.

J M Anderson

*Can Fish Res Board J* 25(12):2677-2682

Dec 1968 442.9 C16J

DDT, Nervous system, Physiology, Temperature, Trout.

**587-69**

PROTEIN-DEFICIENT DIET AND DDT TOXICITY.

E M Boyd E S De Castro

*World Health Organ Bull* 38(1):141-150 REF

1968 449.9 W892B

Animal nutrition, Chlorinated hydrocarbons, Diet, DDT, Insecticides, Kidneys, Liver, Proteins, Rats. French summary.

**588-69**

PESTICIDE STORAGE IN HUMAN FAT TISSUE.

W S Hoffman

*Amer Vet Med Ass J* 145(11):1103

01 Dec 1964 41.8 AM3

DDT, Fats, Human diseases, Lindane, Pesticides, Storage.

**589-69**

A MERGANSER DIE-OFF ASSOCIATED WITH LARVAL EUSTRONGYLIDES.

L N Locke J B DeWitt C M Menzie J A Kerwin

*Avian Dis* 8(3):420-427, 6 REFS.

Aug 1964 41.8 AV5

Eustrongylides, Larvae, Merganser die-off.

**590-69**

DIAGNOSIS AND TREATMENT OF POISONING IN DOGS.

K H Niemeyer

*Amer Vet Med Ass J* 149(12):1726-1728, 1 REF.

Dec 1966 41.8 AM3

Arsenic, Atropine, Blood transfusions, Cathartics, DDT, Dogs, Parathion, Poisoning, Sodium bicarbonate, Thallium, Warfarin.

**591-69**

EVIDENCE FOR CONVERSION OF DDT TO TDE IN RAT LIVER: I. LIVER/BODY FAT RATIOS OF TDE.

A Ottoboni J I Ferguson

*Bull Environ Contam Toxicol* 3(5,SEP-OCT):296-301 REF

1968 RA1270.P35A1

Animal physiology, Biochemistry, DDT, Fats, Liver, Rats, TDE.

**592-69**

EVIDENCE FOR CONVERSION OF DDT TO TDE IN RAT LIVER: II. CONVERSION OF P,P'DDT TO P,P'TDE IN AXENIC RATS.

A Ottoboni R Gee R L Stanley M E Goetz

*Bull Environ Contam Toxicol* 3(5,SEP-OCT):302-308 REF

1968 RA1270.P35A1

Animal physiology, Biochemistry, DDT, Liver, Rats.

**593-69**

TICK FEVER IN POULTRY.

I P Singh

*Com Hort Floristry* 4(3):23-24

Jan 1968 S19.P7

Blood parasites, Borrelia anserina, DDT, Insect control, Ixodides, Malathion, Microscopy, Penicillin, Piroplasmosis, Poultry, Poultry diseases, Vaccines.

**594-69**

EFFECT OF HIGH TEMPERATURE COOKING ON CHLORINATED INSECTICIDE RESIDUES IN CHICKEN TISSUES.

A R Stemp B J Liska R L Wesley W J Stadelman

*Poultry Sci* 44(5):1417

Sep 1965 47.8 AM33P

Captan, Chickens, Dieldrin, DDT, Endrin, Insecticide residues, Lindane, Temperature.

**595-69**

DEPLETION OF DDT FROM COMMERCIAL LAYERS.

R L Wesley A R Stemp B J Liska W J Stadelman

*Poultry Sci* 44(5):1425

Sep 1965 47.8 AM33P

Chickens, DDT.

**596-69**

EFFECTS OF DDT ON BRAIN ELECTRICAL ACTIVITY IN AWAKE, UNRESTRAINED RATS.

D E Woolley B A Barron

*Toxicol Appl Pharmacol* 12(3):440-454 REF

May 1968 391.8 T662

Brain, DDT, Dosage, Electrodes, Electrophysiology, Laboratory animals, Rats, Symptomatology.

## ARTHROPODS

**597-69**

BLACK FLIES (DIPTERA, SIMULIDAE) OF VOLOGDA REGION AND THEIR CONTROL.

S I Adrianov

*Entomol Rev* 46(1,JAN-MAR):107-110

Mar 1967 421 R322AE

Chemical control (insects), DDT, Simuliidae, Zoogeography.

**598-69**

THE EFFECT OF DDT ON REPRODUCTION IN MICE.

M S Cannon L C Holcomb

*Ohio J Sci* 68(1):19-24

Jan 1968 410 OH3

Animal physiology, Biological assay, Chlorinated hydrocarbons, DDT, Insecticides, Mice, Reproduction, Toxicology.

**599-69**

THE CONTROL OF TSETSE AND TRYPANOSOMIASIS IN THE NORTH-EASTERN DISTRICTS OF RHODESIA.

T J Caswell

*Pans (pest Articles News Sum) Sect A Insect Contr* 15(2):219-221

Jun 1969 423.92 G798

Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Glossina morsitans, Insecticides, Trypanosoma congolense.

**600-69**

INSECT TORMENTORS OF LIVESTOCK: IV. THE MITES.

R P Chaudhury

*Indian Farming* 16(5):43-45,49

Aug 1966 22 IN283

Acaricides, Acarina, Benzene hexachloride, Dieldrin, DDT, Host relationships, Livestock diseases.

Life cycles, ecology and chemical control of mites of livestock in India is discussed.

**601-69**

INSECT TORMENTORS OF LIVESTOCK: III. FLEAS AND TICKS.

R P Chaudhury

*Indian Farming* 16(4):11-15

Jul 1966 22 IN283

Argas persicus, Benzene hexachloride, Chemical control (insects), DDT, Insecticides, Ixodidae, Siphonaptera.

Life cycles, including host relationships and chemical control of fleas and ticks attaching livestock in India are discussed.

**602-69**

CONTROL OF FACE FLIES, MUSCA AUTUMNALIS ON BEEF CATTLE IN INDIANA.

R C Dobson D A Huber

*J Econ Entomol* 54(3):434-436, 4 REFS., 1 FIG.

Jun 1961 421 J822

Cattle, DDT, Musca, Toxaphene.

**603-69**

RESISTANCE TO CHLORINATED HYDROCARBON INSECTICIDES IN THE EYE GNAT, HIPPELATES COLLUSOR.

G P Georgiou M S Mulla

*J Econ Entomol* 54(4):695-698, 2 REFS.

Aug 1961 421 J822

Dieldrin, DDT, Hippelates, Lindane, Parathion.

**604-69**

FIELD STUDIES OF HOUSE FLY RESISTANCE TO ORGANOPHOSPHORUS INSECTICIDES.

E J Hansens

*J Econ Entomol* 53(2):313-317, BIBL.

Apr 1960 421 J822

Diazinon, DDT, Insecticide resistant insects, Lindane, Musca domestica, Ronnel.

**605-69**

NEW CONCEPTS FOR CATTLE TICK CONTROL.

K L Hills

*Spain; Shell Pub Health Agr News* 11(1):10-12

1968 464.8 SP2

Animal disease resistance, Boophilus annulatus, Boophilus annulatus microplus, Cattle, DDT, Insect control, Insect vectors, Insecticides, Ixodides, Parasitic insects.

**606-69**

REPOPULATION BY AQUATIC INSECTS IN STREAMS SPRAYED WITH DDT.

W H Kittams J H Pepper

*Entomol Soc Amer Ann* 54(3):436-437

May 1961 420 EN82

DDT, Pesticide residues, Plecoptera, Streams, Trichoptera.

**607-69**

GETTING RID OF CAMEL MANGE.

K R Lodha

*Indian Farming* 16(2):33-34

May 1966 22 IN283

Camels, Chemical control (insects), Coumaphos, DDT, Lindane, Mange.

**608-69**

SHEEP ECTOPARASITE CONTROL. I. INSECTICIDES AND APPLICATION METHODS FOR KEDS AND BITING LICE.

J G Matthyse

*J Econ Entomol* 60(6):1645-1650 REF

Dec 1967 421 J822

Bovicola ovis, Chemical control (insects), Coumaphos, Diazinon, Dieldrin, DDT, Insect pests, Insecticide application, Malathion, Melophagus ovinus, Ronnel, Sheep.

Abstract

**609-69**

HERBICIDE-INSECTICIDE FORMULATIONS FOR CONTROL OF THE AMERICAN DOG TICK.

J A McKiel D A Dever J R Proctor M B Garvie

*J Econ Entomol* 60(6):1570-1572

Dec 1967 421 J822

Chemical control (insects), D, 2,4-, Dermacentor variabilis, DDT, Herbicides, Insect vectors, Insecticides, Lindane, T, 2,4,5-.

Abstract

**610-69**

HOUSEFLIES, BLOWFLIES AND CLUSTER FLIES.

*Great Brit Min Agr Fish Food Adv Leaflet* (365):1-7

Dec 1966 10 G79LA

Animal disease transmission, Calliphora, Chemical control (insects), DDT, Fannia, Insect behavior, Insect vectors, Life cycle, Lindane, Musca, Musca domestica, Phaenicia sericata, Sarcophaga, Stomoxys calcitrans.

The life cycles, ecology and disease transmission by houseflies, blowflies and cluster flies are discussed. Control with lindane, diazinon, fenclorophos and DDT are recommended.

# 611-69 HOUSE FLY PUPATION UNDER BASEBOARDS.

J L Minkin H G Scott  
*J Econ Entomol* 53(3):479-480, BIBL., PL.

Jun 1960 421 J822

DDT, Guinea pigs, Household insects, Malathion, Musca domestica, Parathion, Pupae.

# 612-69

## CHLORINATED HYDROCARBON INSECTICIDES AS SOIL TREATMENTS AGAINST THE EYE GNAT HIPPELATES COLLUSOR (TOWNSEND) IN THE LABORATORY.

M S Mulla

*J Econ Entomol* 53(3):367-372, BIBL., TABS.

Jun 1960 421 J822

Aldrin, Chlorine, Dieldrin, DDT, Heptachlor, Lindane, Toxaphene.

# 613-69

## LOSS OF ACTIVITY OF CHLORINATED HYDROCARBON INSECTICIDES IN SOIL AS MEASURED AGAINST THE EYE GNAT, HIPPELATES COLLUSOR.

M S Mulla

*J Econ Entomol* 53(5):785-787

Oct 1960 421 J822

Aldrin, Chlorine, Dieldrin, DDT, Endrin, Hippelates, Lindane.

# 614-69

## STICKTIGHT FLEA CONTROL ON CHICKENS WITH MALATHION DUST SELF-TREATMENT.

J L Rodriguez L A Riehl

*J Econ Entomol* 54(6):1212-1214, 5 REFS.

Dec 1961 421 J822

Chicks, DDT, Malathion, Siphonaptera.

# 615-69

## NEW RESTRICTIONS ON USE OF DDT.

F B Thompson

*New Zeal J Agr* 114(6):53

Jun 1967 23 N48J

Chemical control (insects), DDT, Insecticide residues, Legislation.

Permits for DDT use in New Zealand are restricted during May, June and July. Specifications for its use around livestock are given.

# 616-69

## AFRICAN RED TICK ERADICATION WITH DDT. FINAL REPORT ON ERADICATION OF RED TICK FROM AFRICA, AND USA.

*Amer Vet Med Ass J* 141(4):461

15 Aug 1962 41.8 AM3

Chemical control (pests), DDT.

# 617-69

## RESIDUAL INSECTICIDES FOR USE AGAINST TSETSE FLIES IN RHODESIA.

G Vale

*Pans (pest Articles News Sum) Sect A Insect Contr* 15(2):213-218

Jun 1969 423.92 G798

Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Glossina morsitans, Glossina pallidipes, Insecticide residues.

## PARASITES

# 618-69

## RESISTANCE TO BHC IN THE CATTLE TICK BOOPHILUS MICROPLUS (CAN.) IN INDIA.

R P Chaudhuri R C Naithani

*Bull Entomol Res* 55(3):405-410, 5 REFS., 5 TABS.

Dec 1964 421 B87

Arsenic, Benzene hexachloride, Boophilus, DDT, Toxaphene.

## COMMODITY PROTECTION

# 619-69

## DETERMINATION OF DDT IN BIOLOGICAL MATERIAL.

G Janicek J Davider

*J Sci Food Agr* 16(7):11-42-1

Jul 1965 382 SO12

Biological assay, DDT.

# 620-69

## DISTRIBUTION AND STABILITY OF DDE, DDD, AND DDT IN MONTEREY AND CHEDDAR CHEESE DURING MANUFACTURE AND STORAGE.

J E Montoure P J Muldoon

*J Dairy Sci* 51(6):858-862

Jun 1968 44.8 J822

Cheese, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Food processing, Food storage.

# 621-69

## EFFECT OF STORAGE ON COTTONSEED AND COTTONSEED PRODUCTS.

A Rahim A Kahn A Ali

*Pakistan Cottons* 12(1):27-30

Oct 1967 72.8 P172

Chemicals, Cottonseed, DDT, Humidity, Nitrogen, Storage, Temperature.

## ARTHROPODS

# 622-69

## RESIDUES ON ORANGES RESULTING FROM THE USE OF DDT, PARATHION, PHOSDRIN, AND TDE FOR THE CONTROL OF ORANGEWORMS.

E L Atkins Jr R C Blinn T R Fukuto F A

Gunther

*J Econ Entomol* 54(3):455-456, 8 REFS.

Jun 1961 421 J822

DDT, Insecticide residues, Mcvinphos, Oranges, Parathion.

# 623-69

P M Davey

*J Sci Food Agr* 12(3):177-187, BIBL., TABS.

Mar 1961 382 SO12

Bags, Chemical control (insects), DDT, Food, Insects, Paper containers.

# 624-69

## TERMITE CONTROL MEASURES IN BUILDING CONSTRUCTION.

J George

*Pesticides* 1(8):13-14

Apr 1968 SB951.P43

Aldrin, Benzene hexachloride, Buildings, Chlordane, Chlorinated hydrocarbons, Dieldrin, DDT, Heptachlor, Insect control, Insecticides, Soil sanitation, Termite-proofing.

# 625-69

## AREA CONTROL OF FANNIA CANICULARIS.

E J Hansens

*J Econ Entomol* 56(4):541

Aug 1963 421 J822

Fannia canicularis, Malathion.

# 626-69

## CONTROL OF INSECTICIDE RESIDUES IN PRODUCE.

L J Matthews

*New Zeal J Agr* 114(4):30-32

Apr 1967 23 N48J

Agricultural products, Chlorinated hydrocarbons, DDT, Insecticide residues, Legislation.

Chlorinated hydrocarbon insecticide residues in farm produce are discussed as well as laws to insure that New Zealand's produce meets overseas standards. Alternative insecticides and their application are described.

# 627-69

## CONTAMINATION OF BAGGED WHOLE GINGER AFTER SURFACE TREATMENT WITH TWO SYNTHETIC CONTACT INSECTICIDES.

J A McFarlane L Donegan

*J Sci Food Agr* 13(12):634-638

Dec 1962 382 SO12

Ginger, Insecticides.

# 628-69

## SAVING STORED RICE FROM ATTACKS OF INSECT PESTS.

P B Mookherjee B N Bose

*Indian Farming* 17(3):32-33

Jun 1967 22 IN283

Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Containers, Dieldrin, DDT, Endrin, Insect pests, Insecticides, Pyrethrum, Rice, Sitophilus oryzae, Stored products.

Stored rice to be used only for seed may be protected from insects by spraying with DDT, BHC, dieldrin, endrin, or pyrethrins. Rice for consumption purposes should be parboiled, dried, and stored in air-tight containers.

# 629-69

## SOME INSECTICIDAL TRIALS FOR THE PROTECTION OF TIL SEEDS IN STORAGE.

P B Mookherjee B N Bose

*Indian J Entomol* 29(1):103-104

Mar 1967 420 IN23

Dieldrin, DDT, Endrin, Insecticides, Lindane, Pyrethrum, Seed germination, Sesame, Stored products, Tribolium castaneum.

# 630-69

## SILVERFISH: A TASTE FOR PAPER.

S Rachesky

*Pest Contr* 37(1):32

Jan 1969 449.8 EX8

DDT, Insect biology, Insect control, Lepisma saccharina, Life cycle, Paper.

The life cycle, food habits and ecology of the silverfish, Lepisma saccharina, are discussed. Chemical control with DDT is suggested.

# 631-69

## RESPONSES OF RAISIN MOTH LARVAE TO RESIDUES OF SIX INSECTICIDAL SPRAYS.

P Simmons

*J Econ Entomol* 53(5):975-976

Oct 1960 421 J822

Chlordane, DDT, Ephestia, Lindane, Malathion, Piperonyl butoxide, Pyrethrum, Raisins, Residues.

# 632-69

## EFFECTIVENESS OF SEVERAL INSECTICIDAL AEROSOLS AGAINST THE JAPANESE BEETLE.

W N Sullivan R A Fulton G D Knipling J C

Rainwater

*J Econ Entomol* 54(5):1059-1060, 8 REFS.

Aug 1961 421 J822

Aerosols, Aircraft disinfection, Dichlorvos, Dimethoate, DDT, Naled, Popillia, Pyrethrum.

## RODENTS AND OTHER PESTS

# 633-69

## LAWN AND HOUSEHOLD PESTICIDES ARE DISCUSSED BY CSMA SPEAKERS.

*Agr Chem* 19(1):21-22

Jan 1964 381 AG8

Blissus leucopertus, DDT, Parathion, Spraying equipment, Stenotaphrum secundatum.

# 634-69

## DISTRIBUTION OF C14-DDT AND C14-DIELDRIN IN PREGNANT MICE DETERMINED BY WHOLE-BODY AUTORADIOGRAPHY.

J Backstrom E Hansson S Ullberg

*Toxicol Appl Pharmacol* 7(1):90-96

Jan 1965 391.8 T662

Autoradiography, Dieldrin, DDT, Mice, Radioisotopes.



635-69

**THE SIGNIFICANCE OF DDT IN HOUSEHOLD AND STRUCTURAL PEST CONTROL - 1969.***Nat Pest Cont Ass Tech Release* (6):2P

21 Feb 1969 423.9 N213T

Bats, Chemical control (pests), Chlorinated hydrocarbons, DDT, Household pests, Mice.

**ENVIRONMENTAL CONTAMINATION**

636-69

**DDT YES OR NO.**

Anonymous

*Aerial Appl* 7(6):4,10

Jul 1969 333.8 AE8

Animals, Aquatic animals, DDT, Environment, Humans, Pesticide residues, Regulations.

637-69

**HCH AND DDT IS FORBIDDEN; SUBSTITUTING CHLORINATED HYDROCARBONS IN THE CONTROL OF COLORADO POTATO BEETLE. (HU)**

K Balazs J Bodor

*Kerteszet Szolesz* 17(2):47

Jan 1968 80 K474

Benzene hexachloride, Chemical control (insects), Chlorine, DDT, Hydrocarbons, Insecticides, Legislation, Leptinotarsa decemlineata. 11 insecticides are listed.

638-69

**PREDICTING AND MEASURING THE SOLUBILITY OF P,P'-DDT IN WATER.**

J W Bigger G R Dutt R L Riggs

*Bull Environ Contam Toxicol* 2(2,MAR-APR):90-100 REF

1967 RA1270.P35A1

DDT, Food contamination, Insecticides, Measurement, Solubility, Water.

639-69

**PESTICIDE MONITORING PROGRAMS.**

P A Butler

*U S Fish Wildlife Serv* 260:13-14,MAP

Jun 1967 156.2 C49

Dieldrin, DDT, Endrin, Metabolites, Oysters, Pesticides, Shellfish, Water pollution.

640-69

**ENVIRONMENTAL POLLUTION: SCIENTISTS GO TO COURT.**

L J Carter

*Science* 158(3808):1552-1556

22 Dec 1967 470 SCI2

Dieldrin, DDT, Environment, Insect control, Legislation, Pesticides, Spraying, Water pollution.

641-69

**DDT: THE CRITICS ATTEMPT TO BAN ITS USE IN WISCONSIN.**

L J Carter

*Science* 163(3867):548-551

07 Feb 1969 470 SCI2

Agricultural industries, Dieldrin, DDT, Pesticide residues, Pesticides, Water analysis, Water pollution.

642-69

**RESIDUES OF ORGANOCHLORINE INSECTICIDES AND THEIR METABOLITES IN SOILS IN THE ATLANTIC PROVINCES OF CANADA.**

T R Duffy N Wong

*J Agr Food Chem* 15(3):457-464

May 1967 381 J8223

Aldrin, Canada, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Heptachlor, Insecticide residues, Metabolites, Soil contamination.

Abstract objectives of this project were to establish quantitatively the extent to which residues of the organochlorine insecticides - heptachlor, dieldrin, aldrin, DDT, chlordane - were occurring in Canadian Atlantic soils and the nature of the metabolites resulting from them.

643-69

**PESTICIDES AND THE SOIL FAUNA. I. EFFECTS OF ALDRIN AND DDT IN AN ARABLE FIELD.**

C A Edwards E B Dennis D W Empson

*Ann Appl Biol* 60 (1), 11-22 REF

Aug 1967 442.8 AN72

DDT, Pesticide residues, Soil contamination, Soil fauna.

644-69

**EFFECTS ON WILD YOUNG SALMON OF SPRAYING DDT OVER NEW BRUNSWICK FORESTS.**

P F Elson

*J Fish Res Board Can* 24 (4), 731-767,MAP

Apr 1967 442.9 C16J

DDT, Fish, Forests, Insecticides, Petroleum, Spraying, Streams, Water pollution. Bibliography, p.765-767.

Abstract included.

645-69

**EGGS AND CHLORINATED HYDROCARBONS.**

D C Erwin

*World Rev Pest Contr* 8(1,SPRING):4

1969 79.8 W89

Birds, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Eggs.

646-69

**TECHNIQUES AND PRELIMINARY DATA OF THE MOVEMENT OF DDT AND ZECTRAN THROUGH A FOREST SOIL.**

S P Gessel D W Cole H Rieker

*Agron Abs* 58:94

241 AM39

Chromatography, DDT, Forest soils, Insecticide residues, Pesticide analysis.

647-69

**DDT RESIDUES IN MOUNTAIN STREAM WATER AS INFLUENCED BY TREATMENT PRACTICES.**

A R Grzenda H P Nicholson J I Teasley J H Patric

*J Econ Entomol* 57(5):615-618, TABS.

Oct 1964 421 J822

DDT, Ennomos subsignarius, Insecticide application, Insecticide residues.

648-69

**INFLUENCE OF SOIL TYPE ON THE ACTIVITY OF INSECTICIDES IN SOIL.**

C R Harris

*J Econ Entomol* 59(5):1221-1225

Oct 1966 421 J822

Soil insecticides, Soil series.

649-69

**INFRARED DETERMINATION OF DDT IN DUSTS.**

A B Heagy

*Ass Offic Anal Chem* J 43(2):342-343

May 1960 381 AS7

DDT, Dust (soil), Infrared rays.

650-69

**ANAEROBIC DEGRADATION OF SELECTED CHLORINATED HYDROCARBON PESTICIDES.**

D W Hill P L McCarty

*Water Pollut Contr Fed J* 39(8):1259-1277 REF

Aug 1967 293.8 SE8

Aldrin, Anaerobic bacteria, Biochemistry, Chlorinated hydrocarbons, Degradation, Dieldrin, DDT, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Pesticides, Sludge, TDE, Water pollution.

651-69

**RESIDUES AND CHEMOSTERILANTS: ULTIMATE DISTRIBUTION.**

E Hindin

*Agr Chem* 20(10):32

Oct 1965 381 AG8

Aerial spraying, DDT, Ethion.

652-69

**COLLECTION AND ANALYSIS OF SYNTHETIC ORGANIC PESTICIDES FROM SURFACE AND GROUND WATER.**

E Hindin D S May G H Dunstan

*Residue Rev* 7:130-156, 25 REFS., 8 TABS., 5 FIGS.

1964 389.9 R314

Acetylcholinesterase, Aldrin, Chlordane, Chromatography, Diazinon, Dieldrin, DDT, Endosulfan, Endrin, Heptachlor, Lindane, Malathion, Methoxychlor, Parathion, Ronnel, Water analysis.

653-69

**PESTICIDES AND MAN'S ENVIRONMENT.**

D H Jenkins

*Amer Forests* 75(1):30-31,46-47

Jan 1969 99.8 F762

Dieldrin, DDT, Insecticide residues, Legislation.

Persistent pesticides which contribute heavily to environmental contamination have aroused Michigan communities. Recommendations from various groups are discussed.

654-69

**ENVIRONMENTAL CONTAMINATION PROBLEMS. (SW)**

S Jensen

*Fauna Flora (Uppsala)* 63(5):190-195

Dec 1968 442.8 F27

Chlorinated hydrocarbons, DDT, Ecology, Environment.

655-69

**RESEARCH ON POLLUTION OF CROPS, SOIL AND SHALLOW BODIES OF WATER IN LIGURIA, THROUGH RESIDUES OF SOME ORGANOCHLORINATED PESTICIDES. (IT)**

S Kanitz G Castello

*Giornate Fitopatol* 49:55 REF

26 Mar 1967 SB599.G5

Adipose tissue (animals), Aldrin, Chlorinated hydrocarbons, Chlorine, Crops, Dieldrin, DDT, Endrin, Lindane, Organic compounds, Pesticide residues, Soil contamination, Tables (data), Water pollution.

656-69

**STUDIES ON EFFECTS OF FOREST SPRAYINGS WITH INSECTICIDES, 1952-63, ON FISH AND AQUATIC INVERTEBRATES IN NEW BRUNSWICK STREAMS: INTRODUCTION AND SUMMARY.**

G J Kerswill

*J Fish Res Board Can* 24(4):701-708, MAP REF

Apr 1967 442.9 C16J

Aquatic insects, Choristoneura, DDT, Fish, Forests, Losses, Petroleum, Spraying, Streams, Water pollution.

Abstract included.

657-69

**ACCUMULATION OF CHLORINATED HYDROCARBON PESTICIDES BY MICROORGANISMS IN SOIL. (ABSTRACT).**

W H Ko

*Phytopathology* 57(8):817

Aug 1967 464.8 P56

Chlorinated hydrocarbons, Dieldrin, DDT, Pentachloronitrobenzene, Pesticides, Soil microorganisms.

658-69

**DDT CONTAMINATION OF FEED AND RESIDUES IN MILK.**

R C Laben

*J Anim Sci* 27(6):1643-1650 REF

Nov 1968 49 J82

DDT, Environment, Feed, Milk, Pesticide residues, Research.

659-69

**IDENTIFICATION AND MEASUREMENT OF CHLORINATED ORGANIC PESTICIDES IN WATER BY ELECTRON-CAPTURE GAS CHROMATOGRAPHY.**

W L Lamar D F Goerlitz

1817-B, 12 P., REF.

1965 407 G29W

Aldrin, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Toxaphene, Water pollution.

660-69

IDENTIFICATION AND MEASUREMENT OF CHLORINATED ORGANIC PESTICIDES IN WATER BY ELECTRON-CAPTURE GAS CHROMATOGRAPHY.

W L Lamar D F Goerlitz L M Law

1817-B) 12 P., REF.

1965 407 G29W

Aldrin, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Toxaphene, Water pollution.

661-69

EFFECT OF SOIL CULTIVATION, SOIL SURFACE AND WATER ON THE PERSISTENCE OF INSECTICIDAL RESIDUES IN SOILS.

E P Lichtenstein K R Schulz

J Econ Entomol 54(3):517-522, 10 REFS.

Jun 1961 421 J822

Aldrin, DDT, Evaporation, Insecticide residues, Soils, Water.

662-69

ON THE DISTRIBUTION OF PEST CONTROL AGENTS. (GE)

H Maier-Bode

Naturwissenschaften 55(10):470-473 REF

Oct 1968 474 N213

Adipose tissue (animals), Chlorinated hydrocarbons, Dieldrin, DDT, Endosulfan, Insecticide residues, Organophosphorus compounds, Parathion, Soil contamination, Surveys.

A survey is made of pesticide residues found in soil, animal and plant tissues, and water. The degradation of organophosphorus compounds and chlorinated hydrocarbons as they pass through various ecological systems are discussed.

663-69

THE ACCUMULATION OF <sup>36</sup>CL RING-LABELED DDT IN A FRESHWATER MARSH.

R L Meeks

J Wildlife Manage 32(2):376-397 REF

Apr 1968 410 J827

Aquatic animals, Aquatic plants, Chlorine isotopes, DDT, Insecticide residues, Marshes, Radioactive tracers.

Abstract: Plants and most invertebrates accumulated their highest residues during the first week; vertebrates required longer periods.

664-69

EFFECTS OF PESTICIDES ON WILDLIFE.

N W Moore

Roy Soc Proc Ser B, Biol Sci 167(1007):128-133

REF

21 Feb 1967 501 L84B

Chlorinated hydrocarbons, DDT, Ecology, Insecticide residues, Wildlife.

665-69

DDT: CRITICISM, CURBS ARE ON THE UPSWING.

M Mueller

Science 164(3882):936-937

23 May 1969 470 SC12

Accident prevention, Chlorinated hydrocarbons, DDT, Insecticide residues, Legislation, Salmon, Water pollution.

666-69

THE BEHAVIOR OF DDT AND ZECTRAN ON A FOREST SOIL.

H Riekerk

2 P. (TYPEWRITTEN)

Jan 1968

Carbamates, Chlorinated hydrocarbons, DDT, Forest soils, Insecticide residues, Soil contamination. A progress report. not in Nat. agr. libr.

667-69

PESTICIDES: TRANSATLANTIC MOVEMENTS IN THE NORTHEAST TRADES.

R W Risebrough R J Huggett J J Griffin E D Goldberg

Science 159(3820):1233-1236 REF

15 Mar 1968 470 SC12

Air pollution, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Pesticide residues, Water pollution.

668-69

DETERMINATION OF PESTICIDES IN WATER BY MICROCOULOMETRIC GAS CHROMATOGRAPHY AFTER LIQUID-LIQUID EXTRACTION.

J I Teasley W S Cox

Amer Water Works Ass J 55(8):1093-1096

Aug 1963 292.9 AM32J

Aldrin, Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Colorimetry, Diazinon, Dieldrin, DDT, Organophosphorus compounds, Parathion, Pesticide residues, Phosphorothioic acid esters, Toxaphene, Water pollution.

669-69

METHODS FOR EXTRACTING INSECTICIDES FROM SOIL.

J I Teasley W S Cox

J Agr Food Chem 14(5):519-520

Sep 1966 381 J8223

DDT, Endrin, Insecticide residues, Soil contamination. Cotton field soil.

670-69

DETERMINATION OF PESTICIDES IN WATER BY MICROCOULOMETRIC GAS CHROMATOGRAPHY AFTER LIQUID-LIQUID EXTRACTION.

J I Teasley W S Cox

Amer Water Works Ass J 55(8):1093-1096

Aug 1963 292.9 AM32J

Aldrin, Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Colorimetry, Diazinon, Dieldrin, DDT, Parathion, Pesticide residues, Phosphorothioic acid esters, Toxaphene, Water pollution.

671-69

METHODS FOR EXTRACTING INSECTICIDES FROM SOIL.

J I Teasley W S Cox

J Agr Food Chem 14(5):519-520

Sep 1966 381 J8223

DDT, Endrin, Insecticide residues, Soil contamination. Cotton field soil.

672-69

PERSISTENCE OF PESTICIDES IN ORCHARDS AND ORCHARD SOILS. IN: ORGANIC PESTICIDES IN THE ENVIRONMENT; SYMPOSIUM...AMERICAN CHEMICAL SOCIETY, ATLANTIC CITY, N.J., SEPT. 13-15, 1965. ROBERT J. GOULD, ED.

L C Terriere U Kiigemagi R W Zwick P H Westgard

Advances Chem Ser 60:263-270, REF.

1966 381 AD93

Apples, Chlorinated hydrocarbons, DDT, Groundwater, Insecticide residues, Metabolites, Pears, Soil contamination, Water pollution.

673-69

PERSISTENCE OF PESTICIDES IN ORCHARDS AND ORCHARD SOILS.

L C Terriere U Kiigemagi R W Zwick P H Westgard

Advances Chem Ser 60:263-270 REF

1966 381 AD93

DDT, Halogenated insecticides, Insecticide residues, Orchards, Persistence, Soils.

Approximately 40 per cent of the DDT applied to orchards since 1946 is still present in the soil, most of it in the top 12 inches.

674-69

WATER PESTICIDES. 2.

Nat Center Urban Ind Health Study 31,81P REF

1968 TD427.P38N3

Aldrin, Chlorinated hydrocarbons, Dieldrin, DDT, Endrin, Heptachlor, Insecticides, Lindane, Metabolites, Methoxychlor, Pesticide analysis, Water pollution. Public Health Service publication 999-UH-10. environmental health series.

675-69

WATER FLORAE AS INDICATORS OF IRRIGATION WATER CONTAMINATION BY DDT.

G W Ware M K Dee W P Cahill

Bull Environ Contamination Toxicol 3(6,NOV-DEC):333-338

Dec 1968 RA1270.P35A1

Aquatic plants, DDT, Indicator plants, Insecticides, Irrigation, Plant water relations, Water analysis, Water pollution.

676-69

INTERACTION OF PESTICIDES WITH NATURAL ORGANIC MATERIAL.

R L Wershaw P J Burcar M C Goldberg

Environ Sci Technol 3(3):271-273 REF

Mar 1969 TD420.A1E5

Chlorinated hydrocarbons, DDT, Humic acids, Organic compounds, Pesticides, Phenoxy acid compounds, Sodium humate, Soil chemistry, T, 2,4,5-, Water analysis.

677-69

NOTE ON THE EFFECT OF WATER ON SOXHLET EXTRACTION OF SOME ORGANOCHLORINE INSECTICIDES FROM SOIL AND COMPARISON OF THIS METHOD WITH THREE OTHERS.

I H Williams

Ass Offic Anal Chem J 51(3):715-717

May 1968 381 AS7

Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Heptachlor, Heptachlor epoxide, Insecticide residues, Methodology, Soil contamination, Water.

678-69

DDT RESIDUES IN A EAST COAST ESTUARY, A CASE OF BIOLOGICAL CONCENTRATION OF A PERSISTENT INSECTICIDE.

G M Woodwell C F Wurster P A Isaacson

Science 156(3776):821-824 REF

12 May 1967 470 SC12

Birds, DDT, Fish, Marine biology, Metabolites, Plankton, Water pollution.

Abstract

## RESIDUES

679-69

INCREASED BASIC RESEARCH CALLED FOR AT SYMPOSIUM ON PESTICIDE RESIDUES.

Agr Chem 15(5):48-49, 116

May 1960 381 AG8

DDT, Particle size determination, Pesticide residues.

680-69

EDITORIALS.

Agr Chem 19(5):19,

May 1964 381 AG8

DDT, Fish, Insecticide residues.

681-69

CALLS FOR BAN ON BROAD SPECTRUM INSECTICIDES.

Agr Chem 19(5):20-21

May 1964 381 AG8

Dieldrin, DDT, Endrin, Fish.

682-69

TO BAN DDT DUSTS AND SPRAYS.

Agr Chem 19(3):118

Mar 1964 381 AG8

DDT, Meat, Pesticide residues.



- 683-69**  
**BRITAIN IMPOSES PESTICIDE BAN.**  
*Agr Chem* 19(5):21  
May 1964 381 AG8  
Aldrin, Dieldrin, Dipping, DDT, Fertilizers.
- 684-69**  
**WHAT'S BEHIND THE DDT HASSLE.**  
*J1(4):28,30,120*  
Apr 1968  
DDT, Pesticide residues, Tolerances.
- 685-69**  
**CORROBORATIVE STUDY OF CERTAIN CHLORINATED ORGANIC PESTICIDES IN DAIRY PRODUCTS.**  
*Ass Offic Anal Chem J* 44(2):171-177  
May 1961 381 AS7  
Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Dairy products, DDT, Food contamination, Heptachlor epoxide, Insecticide residues, Lindane, Tde. Journal title, 1961: Journal of the Association of Official Agricultural Chemists.
- 686-69**  
**DDT IS SHOWN TO PERSIST IN WOOD.**  
*Agr Chem* 17(6):72B  
Jun 1962 381 AG8  
DDT, Pesticide residues, Wood.
- 687-69**  
**DETERMINING SMALL AMOUNTS OF DDT IN FLOUR AND OTHER FOODSTUFFS.**  
*J Sci Food Agr* 12(4):1-186-1  
Apr 1961 382 SO12  
DDT, Flour, Pesticide residues.
- 688-69**  
**PERSISTENT PESTICIDES.**  
P H Abelson  
*Science* 164(3880):633  
09 May 1969 470 SC12  
Chlorinated hydrocarbons, DDT, Endrin, Malathion, Pesticide residues, Pesticides, Regulation (pesticides), Volatile substances.
- 689-69**  
**PESTICIDE RESIDUES IN FOOD.**  
*Dublin, Plant Sciences And Crop Husbandry Div.*  
16-17  
1967 103 D852  
Aldrin, Chlorinated hydrocarbons, Dairy products, DDT, Feed, Lindane, Mutton, Pesticide residues, Seeds, Shellfish.
- 690-69**  
**MONITORING FOR CHLORINATED HYDROCARBON INSECTICIDE RESIDUES IN SOYBEANS- 1966.**  
*Pest Mont J* 2(1):58-67  
Jun 1968 SB951.A1P41  
Chlorine, Crop rotation, Dieldrin, DDT, Endrin, Hydrocarbons, Insecticide residues, Plant translocation, Seeds, Soils, Soybeans.
- 691-69**  
**REDUCTION OF RESIDUES OF HEPTACHLOR AND CHLORDANE IN CARROTS WITH SOIL APPLICATIONS OF ACTIVATED CARBON.**  
J F Ahrens J B Kring  
*J Econ Entomol* 61(6):1540-1543 REF  
16 Dec 1968 421 J822  
Carrots, Chlordane, Chlorinated hydrocarbons, DDT, Heptachlor, Insecticide residues, Radishes, Soil sanitation.
- 692-69**  
**THE EFFECT OF A PRETREATMENT WITH PHENOBARBITAL ON THE METABOLISM OF DDT IN DAIRY COWS AND YOUNG BULLS.**  
J G Alary M G Brodeur J C Cote J C Panisset P Lamothe P Guay  
*Rev Can Biol* 27(3):269-271 REF  
Sep 1968 442.8 R325  
Adipose tissue (animals), Animal nutrition, Cattle, DDT, Insecticide residues, Livestock diseases, Metabolism. English and french abstract
- 693-69**  
**DDT. SUBLETHAL EFFECTS ON BROOK TROUT NERVOUS SYSTEM.**  
J M Anderson M R Peterson  
*Science* 164(3878):440-441  
25 Apr 1969 470 SC12  
Chlorinated hydrocarbons, DDT, Nervous system, Temperature, Trout.
- 694-69**  
**INSECTICIDE RESIDUES: PROCEDURE FOR CLEAN UP OF PLANT EXTRACTS PRIOR TO ANALYSES FOR DDT AND RELATED PESTICIDES.**  
C Anglin W P McKinley  
*J Agr Food Chem* 8(3):186-189, TABS.  
May 1960 381 J8223  
DDT, Pesticides, Plant extracts.
- 695-69**  
**UNIVERSITY OF WISCONSIN SCIENTISTS DISCUSS INSECTICIDES AND POLLUTION.**  
Anonymous  
*Conn Fert Plant Food Indus* 118(3):8-9  
Mar 1969 57.8 C73  
Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, DDT, Insecticide application, Insecticide residues, Insecticides, Regulation (pesticides).
- 696-69**  
**NO SERIOUS PROBLEM WITH PESTICIDE RESIDUES.**  
Anonymous  
*Fruit World Market Grower* 69(11):44  
11 Nov 1968 80 F948  
Chlorinated hydrocarbons, DDT, Foreign trade, Pesticide residues, Quarantine, Surveys.
- 697-69**  
**MORE ABOUT THE PESTICIDE RESIDUE PROBLEM.**  
Anonymous  
*Farm Res News* 9(5,SEP/OCT):106  
1968 10.5 F223  
Aldrin, Chlorinated hydrocarbons, Dieldrin, DDT, Lindane, Pesticide residues.
- 698-69**  
**RESIDUE TOLERANCES SET FOR DDT IN MILK.**  
Anonymous  
*Aerial Appl* 5(5):8  
May 1967 333.8 AE8  
Agricultural products, DDT, Food contamination, Insecticide residues, Milk.
- 699-69**  
**QUANTITATIVE MEASUREMENT OF COMBINATIONS OF ARAMITE, DDT, TOXAPHENE, AND ENDRIN IN CROP RESIDUES.**  
T E Archer  
*Bull Environ Contamination Toxicol* 3(2):71-79  
Mar 1968 RA1270.P35A1  
Aramite, Chromatography, Crops, DDT, Endrin, Insecticide residues, Pesticide analysis, Toxaphene.
- 700-69**  
**EXTRACTION OF CHLORINATED PESTICIDE RESIDUES FROM NONFATTY SAMPLES OF LOW MOISTURE CONTENT.**  
P F Bertuzzi L Kamps C I Miles J A Burke  
*Ass Offic Anal Chem J* 50(3):623-627  
Jun 1967 381 AS7  
Acetonitrile, Chlorinated hydrocarbons, Dieldrin, DDT, Feed, Insecticide residues, Mcthoxychlor. Mixture of 35 percent water plus acetonitrile most effective  
Abstract
- 701-69**  
**DEVELOPMENT OF DOUBLE ISOTOPE DERIVATIVE ASSAYS FOR MEASUREMENT OF PESTICIDE RESIDUES. IN:RADIOISOTOPES IN THE DETECTION OF PESTICIDE RESIDUES; PROCEEDINGS OF A PANEL VIENNA, 12-16 APRIL 1965. SB953.P32.**
- R L Bogner  
67-77 REF INTERNATIONAL ATOMIC ENERGY AGENCY  
1966  
Assay, Demeton, Diazinon, Dieldrin, DDT, Pesticide analysis.
- 702-69**  
**PESTICIDES IN HATCHERY TROUT---DIFFERENCES BETWEEN SPECIES AND RESIDUES LEVELS OCCURING IN COMMERCIAL FISH FOOD.**  
A Bradford H Cole D Barry P Baumgarner D E H Frear  
*Pest Mont J* 1(2):35-37  
Sep 1967 SB951.A1P41  
Benzene hexachloride, Chemicals, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Fish, Heptachlor, Heptachlor epoxide, Pesticide residues, Pesticides, Research, Tables (data), TDE, Trout.
- 703-69**  
**INSECTICIDES IN HUMAN FAT IN NEW ZEALAND.**  
H V Brewerton H J W McGrath  
*New Zeal J Sci* 10 (2), 486-492 REF  
Jun 1967 514 N482  
Children, Chlorinated hydrocarbons, Chromatography, DDT, Fats, Humans, Insecticide residues, DDE, New Zealand.  
Abstract included
- 704-69**  
**DDT IN FATS ON ANTARCTIC ANIMALS.**  
H V Brewerton  
*New Zealand J Sci* 12(2):194-199  
Jun 1969 514 N482  
Aquatic animals, Chlorinated hydrocarbons, Chromatography, DDT, Fats, Insecticide residues, Insecticides.
- 705-69**  
**INSECTICIDES IN HUMAN FAT IN NEW ZEALAND.**  
H V Brewerton H J W McGrath  
*New Zealand J Sci* 10(2):486-492 REF  
Jun 1967 514 N482  
Adipose tissue (animals), Analogs, Chemical analysis, Chlorinated hydrocarbons, DDT, Insecticide residues, Statistical analysis.  
Initial results in a programme of analyses of human fats for persistent organo-chlorine insecticides are reported. After fifty-two analyses, mean levels of DDT and DDE were 1.6 and 3.8 p.p.m. respectively.
- 706-69**  
**DDT PROBLEM AT A GLANCE.**  
A W A Brown  
*Aerial Appl* 5(7):13-14  
Jul 1967 333.8 AE8  
Chlorinated hydrocarbons, DDT, Insecticide residues, Organophosphorus compounds, Poisoning, Wildlife.
- 707-69**  
**SECRETION OF DDT IN MILK BY FRESH COWS.**  
W H Brown J M Witt F M Whiting J W Stull  
*Pesticide Progr* 5(5):159  
Sep 1967 79.8 P434  
DDT, Insecticide residues, Milk.  
Abstract
- 708-69**  
**METHOXYCHLOR AS A BLACKFLY LARVICIDE, PERSISTENCE OF ITS RESIDUES IN FISH AND ITS EFFECT ON STREAM ARTHROPODS.**  
G E Burdick H J Dean E J Harris J Skea C Frisa Et Al  
*N Y Fish Game J* 15(2):121-142 REF  
Jul 1968 410 N48  
Aquatic insects, Chlorinated hydrocarbons, DDT, Fish, Insecticide residues, Larvicides, Methoxychlor, Streams, Water pollution.

709-69

**GAS CHROMATOGRAPHY WITH MICROCOULOMETRIC DETECTION FOR PESTICIDE RESIDUE ANALYSIS.**

J Burke W Holswade

*Ass Offic Anal Chem J* 47(5):845-859, 23 REFS., 4 TABS.

Oct 1964 381 AS7

Aldrin, Assay, Chromatography, Crops, DDT, Heptachlor, Heptachlor epoxide, Lindane, Pesticide residues.

710-69

**ACCUMULATION OF DDT AND DIELDRIN BY MICROORGANISMS.**

C I Chacko J L Lockwood

*Can J Microbiol* 13(8):1123-1126

Aug 1967 448.8 C162

Absorption, Dieldrin, DDT, Pesticides, Soil properties.

711-69

**IN VITRO DEGRADATION OF DDT BY INTESTINAL CONTENTS OF ATLANTIC SALMON (SALMO SALAR).**

A D Cherrington U Paim O T Page

*Can Fish Res Board J* 26(1):47-54 REF

Jan 1969 442.9 C16J

Chlorinated hydrocarbons, Chromatography, Degradation, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Fish, Intestines, Microflora, Microorganisms, Salmon, Sterilization, Streptomycin, TDE.

712-69

**PERSISTENCE OF CERTAIN PESTICIDES IN THE SOIL AND THEIR EFFECT ON CROP YIELDS.**

D Chisholm C R MacEachern

*J Sci Food Agr* 12(3):1-126-1

Mar 1961 382 S012

Arsenic, Benzene hexachloride, Chlordane, Crop yields, DDT, Parathion, Pesticide residues.

713-69

**EFFECT OF DDT AND DIELDRIN ON RNA AND PROTEIN SYNTHESIS IN SUBCELLULAR FRACTIONS OF HELA S CELLS.**

R A Chung Y D Lin R W Brown

*J Agr Food Chem* 16(2,MAR-APR):298-299 REF

1968 381 J8223

Biochemistry, Cells, Culture media, Dieldrin, DDT, Pesticide residues, Physiology, Proteins, Ribonucleic acid, Synthesis.

714-69

**DETERMINATION OF DDT RESIDUES AND ITS METABOLITES IN PASTEURIZED FROZEN YOLKS BY GAS-LIQUID CHROMATOGRAPHY. (POL)**

A Cieslicka W Martinek J Zerbe

*Chem Anal* 23(5):1133-1140 REF

1968 385 C4233

Acetone, Chromatography, DDT, Egg yolks, Florisil, Insecticide residues, Metabolites, Pasteurization, English summary.

715-69

**COMPARISONS OF RESIDUES IN MILK RESULTING FROM TWO TYPES OF SPRAY APPLICATIONS OF DDT, SHELL COMPOUND 4072, AND RONNEL.**

H V Claborn H D Mann I L Berry R A Hoffman

*J Econ Entomol* 58(5):922-923

Oct 1965 421 J822

DDT, Milk, Milk analysis, Ronnel, Shell compound 4072, Spraying.

716-69

**SOME OBSERVATIONS ON THE EFFECTS OF USING ORGANOCHLORINE SPRAYS IN AN ORCHARD.**

N Collett D L Harrison

*New Zealand J Sci* 11(2):371-379 REF

Jun 1968 514 N482

Autopsies, Birds, DDT, Insecticide residues, Lindane, Orchards, Soil analysis, Spraying. English abstract

717-69

**PESTICIDE RESIDUES ARE NOT A PROBLEM.***Austral Sugar J* 60(10):547

Jan 1969 65.8 AU7

Agricultural industries, Agricultural research, Chemical control (pests), Dieldrin, DDT, Pesticide residues, Pesticide safety, Pesticides, Surveys.

718-69

**MICROCOULOMETRIC GAS CHROMATOGRAPHY OF PESTICIDES.**

D M Coulson L A Cavanaugh J E De Vries B

Walther

*J Agr Food Chem* 8(5):399-402

Sep 1960 381 J8223

Aldrin, Chlordane, Chlorinated hydrocarbons, Chromatography, Colorimetry, DDT, Endrin, Food contamination, Insecticide residues, Lindane, Toxaphene, Vegetables.

719-69

**PROBLEMS WITH DDT IN FISH CULTURE OPERATIONS.**

J P Cuerrier J A Keith E Stone

*Natur Can* 94(3):315-320

May 1967 410 N216

DDT, Feed contamination, Fish, Insecticide residues, Mortality. English and French abstracts

Abstract

720-69

**PROBLEMS WITH DDT IN FISH CULTURE OPERATIONS.**

J P Cuerrier J A Keith E Stone

*Natur Can* 94(3,MAY-JUN):315-320

Jun 1967 410 N216

DDT, Feed, Fish, Fishery products, Insecticide residues, Roe, Trout.

721-69

**DDT IN HUMANS AND ANIMALS; DETERMINATION OF DDA IN URINE USING AN ION EXCHANGE RESIN.**

C Cueto A G Barnes A M Mattson

*J Agr Food Chem* 4(11):943-945

Nov 1956 381 J8223

DDT, Humans, Insecticide residues, Ion exchange resins, Urine.

722-69

**RESIDUES IN FISH, WILDLIFE, AND ESTUARIES. INSECTICIDE CONCENTRATIONS IN WILDLIFE AT PRESIDIO, TEXAS.**

D D Culley H G Applegate

*Pest Mont J* 1(2):21-28 MAP REF

Sep 1967 SB951.A1P41

Birds, Carbamates, Carbaryl, Chlorinated hydrocarbons, Chromatography, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Endrin, Insecticides, Malathion, Mammals, Methyl parathion, Organophosphorus compounds, Parathion, Reptiles, Research, Residues, Tables (data), Tissues, TDE, Wildlife.

723-69

**CHLORINATED INSECTICIDES IN THE BODY FAT OF PEOPLE IN THE UNITED STATES.**

W F Dale G E Quinby

*Science* 142(3592):593-595, REF.

01 Nov 1963 470 SC12

Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Humans, Insecticide residues, Metabolites.

724-69

**CHLORINATED INSECTICIDES IN THE BODY FAT OF PEOPLE IN THE UNITED STATES.**

W F Dale G E Quinby

*Science* 142(3592):593-595 REF

01 Nov 1963 470 SC12

Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Humans, Insecticide residues, Metabolites.

725-69

**STATISTICAL STUDY OF PARATHION AND DDT RESIDUES ON APPLES.**

R J Daum

*J Sci Food Agr* 12(3):1-144-1

Mar 1961 382 S012

Apples, DDT, Insecticide residues, Parathion.

726-69

**AN EPIDEMIOLOGIC APPLICATION OF THE STUDY OF DDE LEVELS IN WHOLE BLOOD.**

J E Davies W F Edmundson A Maceo A Barquet J Cassidy

*Amer J Public Health Nat Health* 59(3):435 REF

Mar 1969 449.9 AM3J

Blood composition, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Epidemiology, Histology, Humans, Pesticide residues.

727-69

**KNOWLEDGE OF BASIC PESTICIDE FACTS CAN HELP COUNTERACT FALSE PROPAGANDA.**

G C Decker

*Agr Chem* 17(3):20-21, 2 TABS.

Mar 1962 381 AG8

DDT, Pesticide residues, Pesticides.

728-69

**RESIDUE STUDY SHOWS NO PESTICIDE HAZARD IN PACIFIC COAST SEAFOOD.**

D M DeVries

*Agr Chem* 19(5):40-45

May 1964 381 AG8

Colorimetry, Dieldrin, DDT, Heptachlor, Pesticide residues, Seafood.

729-69

**CO-DISTILLATION CLEAN-UP FOR DDT RESIDUES ESTIMATION.**

R S Dewan K C Gulati

*Cur Sci* 38(5):112-113

05 Mar 1969 475 SC123

Chlorinated hydrocarbons, DDT, Insecticide residues.

730-69

**PERSISTENCE OF DDT IN CRAYFISH IN A NATURAL ENVIRONMENT.**

J B Diamond R E Kadunce A S Getchell J A

Blease

*Ecology* 49(4 SUMMER):759-762

1968 410 EC7

Chlorinated hydrocarbons, Chromatography, Crayfish, DDT, Insecticide residues, Spraying, Streams.

731-69

**PESTICIDE TESTING IN DAIRY FACTORY LABORATORIES.**

R M Dolby I K Gray

*New Zeal J Dairy Technol* 2(4):138-140

Dec 1967 SF221.N4

Aldrin, Alkalies, Chemicals, Chromatography, Dairy products, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Equipment, Florisil, Hydrolysis, Laboratories, Lindane, Methodology, Pesticides.

732-69

**INFLUENCE OF PESTICIDES ON FRUIT SET, RETURN BLOOM, YIELD AND FRUIT SIZE OF THE APPLE.**

C W Donoho Jr

*J Sci Food Agr* 16(7):11-14-3

Jul 1965 382 S012

Apples, Azinphosmethyl, Captan, Diclhone, DDT, Diodine, Glyodin, Phix.

733-69

**SOME REMARKS ON PLANT PROTECTION PREPARATION-TOLERANCES. (GE)**

H Drees

*Gesunde Pflanzen* 20(9):193-195

Sep 1968 464.8 G33

Carbamates, Carbaryl, Chlorinated hydrocarbons, Demeton, DDT, Lindane, Parathion, Pesticide residues, Pesticides, Plant protection, Tolerances.

734-69

**DDT RESIDUES AND METABOLITES IN CANADIAN ATLANTIC COAST FISH.**



J R Duffy D O'Connell

*Can Fish Res Board J* 25(1):189-195 R5F

Jan 1968 442.9 C16J

Chlorinated hydrocarbons, Chromatography, DDT, Fish, Insecticide residues, Metabolites, Salmon, Trout.

Tissues and organs of salmon, brook trout and mackerel were analyzed for DDT, DDD, DDE and other metabolites.

735-69

**PESTICIDE RESIDUE IN FRESHWATER FISH OILS AND MEALS.**

L C Dugal

*Can Fish Res Board J* 25(1):169-172

Jan 1968 442.9 C16J

Animals, Biological assay, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Feed, Fish meal, Heptachlor, Insecticide residues.

The level of pesticide residues in four freshwater fish used for animal foods was found to be at a satisfactory level with the exception of oil from the Lake Michigan alewife.

736-69

**PESTICIDE RESIDUES IN TOTAL DIET SAMPLES.**

R E Duggan H C Barry L Y Johnson

*Weed Abs* 15(2):115

Mar 1966 241 G797

Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, Diet, DDT, Food, TDE.

737-69

**INSECTICIDE CONTAMINATION OF ROOMS AND EQUIPMENT USED TO REAR THE ORIENTAL FRUIT MOTH.**

G G Dustan

*J Econ Entomol* 59(1):125-127

Feb 1966 421 J822

Argyrotaenia velutinana, Carpocapsa pomonella, DDT, Grapholitha molesta, Greenhouses, Insect rearing equipment, Insecticides.

738-69

**PESTICIDE RESIDUES IN THE ECOSYSTEM.**

E H Dustman L F Stickel

*Amer Soc Agron ASA Spec Publ* 8:109-121 REF

Nov 1966 64.9 AM3

Chlorinated hydrocarbons, DDT, Pesticide application, Pesticide residues.

739-69

**TRANSLOCATION OF DDT AND HEPTACHLOR IN SOYBEANS.**

W G Eden B W Arthur

*J Econ Entomol* 58(1):161-162

Feb 1965 421 J822

DDT, Heptachlor, Insecticide translocation, Soybeans.

740-69

**PESTICIDES AND THE SOIL FAUNA; EFFECTS OF ALDRIN AND DDT IN AN ARABLE FIELD.**

C A Edwards E B Dennis D W Empson

*Ann Appl Biol* 60(1):11-22 REF

Aug 1967 442.8 AN72

Aldrin, DDT, Fumigants, Insecticide residues, Soil fauna, Soils.

741-69

**CHLORINATED HYDROCARBON INSECTICIDE RESIDUES IN SELECTED INSECTS AND BIRDS FOUND IN ASSOCIATION WITH COTTON FIELDS.**

E I El Sayed J B Graves F L Bonner

*J Agr Food Chem* 15(6):1014-1017

Nov 1967 381 J8223

Birds, Chlorinated hydrocarbons, Cotton, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Heliothis zea, Insecticide residues, Insects, Metabolites.

Abstract

742-69

**REMOVAL OF DDT, MALATHION, AND CARBARYL FROM GREEN BEANS BY COMMERCIAL AND HOME PREPARATIVE PROCEDURES.**

E R Elkins F C Lamb R P Farrow R W Cook M

Kawai J R Kimball

*J Agr Food Chem* 16(6):962-966

Nov 1968 381 J8223

Beans, Carbaryl, DDT, Food processing, Malathion, Pesticide residues.

743-69

**INSECTICIDE EXPOSURE: A SENSITIVE PROCEDURE FOR URINARY P-NITROPHENOL DETERMINATION AS A MEASURE OF EXPOSURE TO PARATHION.**

J W Elliott K C Walker A E Penick W F Durham

*J Agr Food Chem* 8(2):111-113

Mar 1960 381 J8223

Acetonitrile, Chlordane, Coumaphos, Dimethoate, DDT, Humans, Insecticide residues, Parathion, Pesticide analysis, Urine.

744-69

**EFFECTS ON WILD YOUNG SALMON OF SPRAYING DDT OVER NEW BRUNSWICK FORESTS.**

P F Elson

*Can Fish Res Board J* 24(4):731-767 MAP REF

Apr 1967 442.9 C16J

Chlorinated hydrocarbons, DDT, Insecticide residues, Insecticides, Mortality, Salmon, Water pollution.

745-69

**REMOVAL OF DDT, MALATHION, AND CARBARYL FROM TOMATOES BY COMMERCIAL AND HOME PREPARATIVE METHODS.**

R P Farrow F C Lamb R W Cook J R Kimball E

R Elkins

*J Agr Food Chem* 16(1,JAN-FEB):65-71 REF

1968 381 J8223

Carbaryl, DDT, Food processing, Malathion, Methodology, Pesticide residues, Tomatoes.

746-69

**AS THE DUST SETTLES. A LOOK AT PESTICIDES.**

D E Ferguson

*Agr Chem* 20(11):25-26,106

Nov 1965 381 AG8

DDT, Pesticide residues, Pesticides.

747-69

**TOLERANCES OF THREE SPECIES OF ANURAN AMPHIBIANS TO FIVE CHLORINATED HYDROCARBON INSECTICIDES.**

D E Ferguson C C Gilbert

*Miss Acad Sci J* 13:135-138

1967 500 M697

Aldrin, Biological assay, Chlorine, Dieldrin, DDT, Endrin, Frogs, Hydrocarbons, Insecticides, Pesticide residues, Tolerances, Toxaphene.

748-69

**THE SUSCEPTIBILITY OF HOUSE FLIES REARED UNDER VARIOUS PHOTOPERIODS TO INSECTICIDE RESIDUES.**

A T Fernandez N M Randolph

*J Econ Entomol* 59(1):37-39

Feb 1966 421 J822

Insect rearing, Insecticide residues, Musca domestica, Photoperiodism.

749-69

**RETENTION OF DDT AND DDE BY THE BOVINE.**

G F Fries E A Kane

*J Dairy Sci* 50(9):1512-1514 REF

Sep 1967 44.8 J822

Cattle, DDT, Insecticide residues, DDE.

Abstract

750-69

**AN INVESTIGATION OF THE OSCILLOPOLAROGRAPHY OF DDT AND CERTAIN ANALOGS.**

R J Gajan J Link

*Ass Offic Anal Chem J* 47(6):1119-1124, 12

REFS., 2 TABS.

Dec 1964 381 AS7

Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, Dicofof, DDT, Insecticide residues, Methoxychlor, Polarography.

751-69

**THE EXCRETION OF DIELDRIN, DDT, AND HEPTACHLOR EPOXIDE IN MILK OF DAIRY COWS FED ON PASTURES TREATED WITH DIELDRIN, DDT, AND HEPTACHLOR.**

N Gannon G C Decker

*J Econ Entomol* 53(3):411-415, BIBL. 414-415,

TABS.

Jun 1960 421 J822

Cattle, Dieldrin, DDT, Heptachlor, Heptachlor epoxide, Milk, Residues.

752-69

**DDT REPORTEDLY DISCOVERED IN ANTARCTIC SEALS AND FISH.**

J L George

*Agr Chem* 20(9):59

Sep 1965 381 AG8

DDT, Pesticide residues, Wildlife.

753-69

**NO EFFECT LEVEL OF DDT IN INDUCTION OF MICROSOMAL EPOXIDATION.**

J W Gillett

*J Agr Food Chem* 16(2,MAR-APR):295-297 REF

1968 381 J8223

Aldrin, Dieldrin, Diet, DDT, Liver, Pesticide residues, Rats.

754-69

**TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURE COMMODITIES. DDT.**

J L Goddard

*Fed Regist* 33(125,PT.1):9396

Feb 1968 L1.451

Chemicals, DDT, Food plants, Insecticides, Pesticide residues.

755-69

**DEGRADATION OF DDT IN ATLANTIC SALMON (SALMO SALAR).**

G L Greer U Paim

*Can Fish Res Board J* 25(11):2321-2326 REF

Nov 1968 442.9 C16J

Biochemistry, Chemical reactions, Chromatography, Degradation, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Insecticides, Metabolites, Residues, Salmon, Toxicology.

756-69

**RAPID COLORIMETRIC DETERMINATION OF DDT IN MILK.**

F A Gunther R C Blinn D E Ott

*Ass Offic Anal Chem J* 45(2):359-363, 8 REFS.,

5 TABS.

May 1962 381 AS7

Colorimetry, DDT, Milk, Pesticide residues.

757-69

**PRODUCTION OF ANTIBODIES AGAINST INSECTICIDE-PROTEIN CONJUGATES.**

G J Haas E J Guardia

*Soc Exp Biol Med Proc* 129(2):546-551

Nov 1968 442.9 SO1

Antibodies, DDT, Malathion, Rabbits, Serological tests.

758-69

**COMPARISON OF FIVE EXTRACTION PROCEDURES FOR THE RECOVERY OF DDT RESIDUES IN FIELD-TREATED COLLARDS.**

L J Hardin C T Sarten

*Ass Offic Anal Chem J* 45(4):988-990, 8 REFS.,

1 TAB.



759-69

Nov 1962 381 AS7

Assay, DDT, Kale, Pesticide residues.

759-69

DDT RESIDUES ON SWEET CORN EAR TIPS AND SILKS AFTER TREATMENT WITH DUST, SPRAY, OR GRANULAR FORMULATIONS.

E A Harrell M C Bowman W W Hare

*J Econ Entomol* 58(1):55-58, BIBL.

Feb 1965 421 J822

DDT, Dusting, Insecticide application, Insecticide residues, Spraying, Sweetcorn.

760-69

DDT RESIDUES ON PASTURE AND IN THE BUTTERFAT OF COWS GRAZING PASTURE TREATED WITH DDT PRILLS AND DDTSU-PERPHOSPHATE. (ABSTRACT).

D L Harrison J N Collett C J Christie

*Pesticide Progr* 5(3):73

May 1967 79.8 P434

Dairy cattle, DDT, Grazing, Insecticide residues, Insecticides, Milk fat, Pastures, Toxicology. This was author's abstract from New Zealand Jour. Agric. Res. 8(2):223-231. 1965.

761-69

THE EFFECT OF EVEN OR UNEVEN APPLICATIONS OF DDT PRILLS TO PASTURE ON DDT RESIDUES IN STOCK.

D L Harrison V Shanks

*New Zeal J Agr Res* 10(2):253-260

May 1967 23 N4892

Biochemistry, Biological assay, Cattle, DDT, Insecticide residues, Sheep.

DDT residues were measured in sheep fat and cow milk from animals grazing on evenly and unevenly treated pastures. The results indicated that random grazing occurred on the unevenly treated pastures.

762-69

EXCRETION OF DDT BY MIGRATORY BIRDS.

J M Harvey

*Can J Zool* 45(5):629-633

Sep 1967 470 C16D

Birds, Brain, Carbon isotopes, DDT, Excreta, Insecticide residues, Liver, Radioactive tracers, Starlings.

Abstract

763-69

INSECTICIDE RESIDUES IN MILK AND DAIRY PRODUCTS.

J L Henderson

*Residue Rev* 8:74-115, 44 REFS., 10 TABS.

1965 389.9 R314

Aldrin, Chlordane, Chromatography, Dieldrin, DDT, Endrin, Food contamination, Heptachlor, Lindane, Methoxychlor, Pesticide residues, Toxaphene.

764-69

DISTRIBUTION OF INSECTICIDES SPRAYED BY AIRPLANE ON AN IRRIGATED CORN PLOT.

E Hindin D S May G H Dunstan

*Advances Chem Ser* 60:132-145 REF

1966 381 AD93

Aerial spraying, Corn, Diazinon, DDT, Ethion, Insecticide residues, Irrigation.

765-69

DDT RESIDUES ON NEW YORK DAIRY FARMS FOLLOWING THE GYPSY MOTH ERADICATION PROGRAM.

E W Huddleston G G Gyrisco D J Lisk

*J Econ Entomol* 53(6):1019-1021, 2 REFS., 5 TABS.

Dec 1960 421 J822

DDT, Eggs, Milk, New York, Porthetria.

766-69

DDT RESIDUES ON NEW YORK DAIRY FARMS FOLLOWING THE GYPSY MOTH ERADICATION PROGRAMME.

E W Huddleston G G Gyrisco D J Lisk

*J Sci Food Agr* 12(5):1-223-5

May 1961 382 SO12

DDT, Eggs, Hay, Insecticide residues, Milk, Porthetria.

767-69

RESPONSE OF ROBINS TO DDT AND METHOXYCHLOR.

L B Hunt R L Sacho

*J Wildlife Manage* 33(2):336-345 REF

Apr 1969 410 J827

Birds, DDT, Insecticide residues, Methoxychlor, Mortality.

768-69

STUDIES ON THE EFFECT OF SULFURIC-FUMING NITRIC ACID TREATMENT ON THE ANALYTICAL CHARACTERISTICS OF TOXAPHENE.

Y Kawano A Bevenue H Beckman F Erro

*Ass Offic Anal Chem J* 52(1):167-172 REF

Jan 1969 381 AS7

Chemical analysis, Chromatography, DDT, Insecticide residues, Nitric acid, Sulfuric acid, Toxaphene.

769-69

EFFECTS OF FOREST SPRAYING WITH DDT IN NEW BRUNSWICK ON FOOD OF YOUNG ATLANTIC SALMON.

M H A Keenleyside

*Can Fish Res Board J* 24(4):807-822 MAP REF

Apr 1967 442.9 C16J

Chemical control (insects), Chlorinated hydrocarbons, DDT, Fish, Food supply, Insecticide residues, Insecticides, Water pollution.

The changes in food content of the digestive systems of salmon were analyzed after aerial applications of DDT were made in forested areas of New Brunswick.

770-69

STUDIES ON EFFECTS OF FOREST SPRAYINGS WITH INSECTICIDES, 1952-63, ON FISH AND AQUATIC INVERTEBRATES IN NEW BRUNSWICK STREAMS: INTRODUCTION AND SUMMARY.

C J Kerswill

*Can Fish Res Board J* 24(4):701-708 MAP REF

Apr 1967 442.9 C16J

Chemical control (insects), Choristoneura fumiferana, DDT, Forest management, Insecticide residues, Marine biology, Salmon, Water pollution.

A review is presented of insecticide sprays used in New Brunswick and fisheries checked for insecticide residues in fish and water from 1952 through 1963. This is the introductory paper of a series.

771-69

FISH LOSSES AFTER FOREST SPRAYINGS WITH INSECTICIDES IN NEW BRUNSWICK, 1952-62, AS SHOWN BY CAGED SPECIMENS AND OTHER OBSERVATIONS.

C J Kerswill H E Edwards

*Can Fish Res Board J* 24(4):709-729 MAP REF

Apr 1967 442.9 C16J

DDT, Fish, Insecticide residues, Insecticides, Mortality, Water pollution.

The survival of fish in forested areas sprayed with different percentages of DDT for budworm control is discussed. Caged and free-living salmon and brook trout were examined.

772-69

THE PESTICIDE RESIDUE PROBLEM FROM THE FDA'S POINT OF VIEW.

J K Kirk

*Agr Chem* 19(10):22-23,90-91

Oct 1964 381 AG8

Dieldrin, DDT, Endrin, Lindane, Pesticide residues.

773-69

DETERMINATION OF DDT IN LEAFY VEGETABLES.

A K Klein

*Ass Offic Anal Chem J* 43(3):703-706

Aug 1960 381 AS7

DDT, Vegetables.

774-69

SEPARATION AND MEASUREMENT OF PERTHANE, DDD(TDE), AND DDT IN LEAFY VEGETABLES BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.

A K Klein J O Watts

*Ass Offic Anal Chem J* 47(2):311-316, 9 REFS., 1 TAB.

Apr 1964 381 AS7

Chromatography, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, DDT, Pesticide residues, Tde, Vegetables.

775-69

METABOLITES:REDUCTIVE DECHLORINATION OF DDT TO DDD AND ISOMERIC TRANSFORMATION OF O,P, DDT TO P,P-DDT IN VIVO.

A K Klein E P Laug P R Datta J D Watts J T Chen

*Ass Offic Anal Chem J* 47(6):1129-1145

Dec 1964 381 AS7

Chromatography, DDT, Liver, Metabolites, Pesticide residues.

776-69

FIELD WEATHERING OF TOXAPHENE AND CHLORDANE.

A K Klein J D Link

*Ass Offic Anal Chem J* 50(3):586-591

Jun 1967 381 AS7

Chlordane, DDT, Insecticide residues, Kale, Rainfall, Toxaphene, Vegetables, Weather.

Abstract

777-69

RAPID SEMIMICRO-ONE-STEP CHROMATOGRAPHIC CLEANUP OF CHLORINATED HYDROCARBON PESTICIDE RESIDUES IN POULTRY AND EGGS.

A W Kotula W A Moats

*Poultry Sci* 44(5):1391-1392

Sep 1965 47.8 AM33P

Chromatography, Dieldrin, DDT, Eggs, Endrin, Heptachlor, Lindane, Pesticide residues, Poultry.

778-69

PESTICIDE RESIDUES IN A MARINE POPULATION OF DOUBLE-CRESTED CORMORANTS.

C R Kury

*J Wildlife Manage* 33(1):91-95 REF

Jan 1969 410 J827

Aquatic birds, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Metabolites, Mortality, Pesticide residues, Reproduction.

779-69

BEHAVIOR OF DDT IN POTATOES DURING COMMERCIAL AND HOME PREPARATION.

F C Lamb R P Farrow E R Elkins R W Cook J R Kimball

*J Agr Food Chem* 16(2,MAR-APR):272-275 REF

1968 381 J8223

Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Food processing, Insecticides, Pesticide residues, Potatoes.

780-69

REMOVAL OF DDT, PARATHION, AND CARBARYL FROM SPINACH BY COMMERCIAL AND HOME PREPARATIVE METHODS.

F C Lamb R P Farrow E R Elkins J R Kimball R W Cook

*J Agr Food Chem* 16(6):967-973 REF

Nov 1968 381 J8223

Carbaryl, DDT, Food processing, Parathion, Pesticide residues, Spinach.

781-69

RAPID CLEANUP OF DAIRY PRODUCTS FOR ANALYSIS OF CHLORINATED INSECTICIDE RESIDUE BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.

B E Langlois A R Stemp B J Liska

*J Agr Food Chem* 12(3):243-245

381 J8223

Chlorinated hydrocarbons, Chromatography, Dairy products, Dieldrin, DDT, Endrin, Food contamination, Insecticide residues, Lindane.

#### 782-69

#### RAPID CLEANUP OF DAIRY PRODUCTS FOR ANALYSIS OF CHLORINATED INSECTICIDE RESIDUE BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.

B E Langlois A R Stemp B J Liska  
*J Agr Food Chem* 12(3,MAY-JUN):243-245  
May 1964 381 J8223

Chlorinated hydrocarbons, Chromatography, Dairy products, Dieldrin, DDT, Endrin, Food contamination, Insecticide residues, Lindane.

#### 783-69

#### EFFECT OF DIRECT STEAM HEATING AND VACUUM TREATMENT ON LEVELS OF PESTICIDE RESIDUES IN MILK.

R A Ledford J H Chen W F Shipe  
*J Dairy Sci* 51(2):219-220  
Feb 1968 44.8 J822

Dieldrin, Distillation, DDT, Lindane, Milk, Pesticide residues, Steam.

#### 784-69

#### AN EVALUATION OF THE EFFECTS OF THE AEDES AEGYPTI ERADICATION PROGRAM ON WILDLIFE IN SOUTH FLORIDA.

P N Lehner T O Boswell F Copeland  
*Pest Mont J* 1(2):29-34  
Sep 1967 SB951.A1P41

Aedes aegypti, Benzene hexachloride, Chemicals, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Evaluation, Heptachlor epoxide, Insect control, Insecticides, Pesticide residues, Research, Spraying, Tables (data), TDE, Wildlife.

#### 785-69

#### PESTICIDES: PRESENT LEVELS IN FOOD AND POSSIBLE SOURCES OF CONTAMINATION.

D T Lewis  
*Roy Soc Proc Ser B, Biol Sci* 167(1007):89-100  
REF

21 Feb 1967 501 L84B

Aldrin, Chlorinated hydrocarbons, Dieldrin, DDT, Food contamination, Insecticide residues, Lindane, Tolerances.

#### 786-69

#### IMPROVED EXTRACTION OF CHLORINATED HYDROCARBON PESTICIDES FROM ANIMAL TISSUES.

C F Li L J. Bradley T Richardson  
*Bull Environ Contam Toxicol* 3(5,SEP-OCT):317-321  
1968 RA1270.P35A1

Animal extracts, Animals, Chlorinated hydrocarbons, Dieldrin, DDT, Pesticide residues, Pesticides, Tissues.

#### 787-69

#### PERSISTENCE OF DDT, ALDRIN, AND LINDANE IN SOME MIDWESTERN SOILS.

E P Lichtenstein L J De Pew E L Eshbaugh J P Slesman  
*J Econ Entomol* 53(1):136-142, BIBL. 141-142, TABS., PL.  
Feb 1960 421 J822

Aldrin, DDT, Lindane, Residues, Soils.

#### 788-69

#### CUTICULA OF LEAVES AND THE RESIDUE PROBLEM.

H F Linskens W Heinen A L Stoffers  
*Residue Rev* 8:136-178, 222 REFS., 12 TABS., 21 FIGS.  
1965 389.9 R314

Dalapon, Demeton, DDT, Dusting, Parathion, Pesticide residues, Spraying.

#### 789-69

#### RESIDUES IN EGGS AND TISSUES OF CHICKENS ON RATIONS CONTAINING LOW LEVELS OF DDT.

B J Liska B E Langlois G C Mostert W J Stadelman

*Poultry Sci* 43(4):982-984, 2 TABS.

Jul 1964 47.8 AM33P

Chickens, DDT, Eggs, Residues, Tissues.

#### 790-69

#### REPRODUCTION IN BROOK TROUT (SALVELINUS FONTINALIS) FED SUBLETHAL CONCENTRATIONS OF DDT.

K J Macek  
*Can Fish Res Board J* 25(9):1787-1796  
Sep 1968 442.9 C16J

DDT, Fish, Insecticide residues, Mortality, Reproduction.

#### 791-69

#### ADSORPTION OF SOME PESTICIDES ON SOILS, CLAY MINERALS AND HUMIC ACID.

G M MacNamara  
*Diss Abstr Sect B* 29(7):2260B-2261B  
Jan 1969 Z5055.U49D53

Clay minerals, Clay soils, DDT, Humic acids, Linuron, Malathion, Pesticides, Soil adsorption.

#### 792-69

#### CHLORINATED HYDROCARBONS AS RESIDUES IN FOODS. (GE)

H Maier-Bode  
*Ernahr-umsch* 16(6):215-219 REF  
Jun 1969 389.8 ER66

Aldrin, Chlorinated hydrocarbons, Dieldrin, DDT, Food contamination, Heptachlor epoxide, Insecticides, Lindane, Pesticide residues.

#### 793-69

#### COMMERCIAL ASPECTS OF PESTICIDE RESIDUES IN FOODSTUFF. (IT)

G Mannelli  
*Giornate Fitopatol* 45-48  
26 Mar 1967 SB599.G5

Agricultural products, Chlorinated hydrocarbons, Dieldrin, DDT, Food contamination, Foreign trade, Organophosphorus compounds, Parathion, Pesticide residues, Tolerances, Vegetables.

#### 794-69

#### INSECTICIDE RESIDUE IN FOODS SUBJECTED TO AEROSOLS UNDER SIMULATED WAREHOUSE CONDITIONS.

H Markarian J J Pratt Jr F Kane B H Kantack  
*J Econ Entomol* 59(4):844-846, TABS.  
Aug 1966 421 J822

DDT, Food storage, Insecticidal aerosols, Lindane, Warehouses.

#### 795-69

#### DETERMINATION OF DOT AND RELATED SUBSTANCES IN HUMAN FAT.

A M Mattson J T Spillane C Baker G W Pearce  
*Anal Chem* 25(7):1065-1070, REF.  
15 Jul 1953 381 J825A

Chlorinated hydrocarbons, Chromatography, DDT, Humans, Insecticide residues, Spectroscopy.

#### 796-69

#### ORGANOCHLORINE INSECTICIDE RESIDUES IN COMPLETE PREPARED MEALS: A 12-MONTH SURVEY IN S. E. ENGLAND. (ABSTRACT).

A E J McGill J Robinson  
*Excerpta Med Pharm Toxicol* 21(12):599-600  
Dec 1968 241.64 EX23

Chlorinated hydrocarbons, Dieldrin, DDT, Food, Insecticides, Milk, Pesticide residues, Surveys. From Food Cosmetology and Toxicology, 1968, 6/1, (45-57).

#### 797-69

#### IDENTIFICATION OF PESTICIDE RESIDUES IN EXTRACTS OF FRUIT, VEGETABLES AND ANIMAL FATS III. METABOLITES OF CHLORINATED HYDROCARBON PESTICIDES IN ANIMAL DEPOT-FAT.

W P McKinley H C Grice  
*J Sci Food Agr* 12(4):192-192-1  
Apr 1961 382 SO12  
Dicofol, DDT, Fats, Pesticide residues, TDE, Vegetables.

#### 798-69

#### CLEANUP PROCESSES FOR PESTICIDE RESIDUE ANALYSIS.

W P McKinley D E Coffin K A McKully  
*Ass Offic Anal Chem J* 47(5):863-871, 41 REFS.  
Oct 1964 381 AS7

Aldrin, Biological assay, Chlordane, Chromatography, Dieldrin, DDT, Pesticide residues, Saponification, Spectrophotometry.

#### 799-69

#### DETERMINATION OF CHLORINATED PESTICIDE RESIDUES IN FAT BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.

K A McKully W P McKinley  
*Ass Offic Anal Chem J* 47(4):652-659, 23 REFS., 3 TABS.  
Aug 1964 381 AS7  
Chromatography, Dieldrin, DDT, Fats.

#### 800-69

#### CAREFUL APPLICATION PAYS OFF BY REDUCING DRIFT AND RESIDUE PROBLEMS.

E Meier  
*Agr Chem* 17(3):63-66, 112-113  
Mar 1962 381 AG8  
Aerial dusting, Legislation, Pesticide application, Pesticide residues.

#### 801-69

#### DRIFT SAMPLING METHOD TOLD CAAA.

E J Meier  
*Agr Chem* 15(3):66-67, 114-116  
Mar 1960 381 AG8  
Dicofol, DDT, Pesticide residues.

#### 802-69

#### METABOLISM OF DDT AND SOME OTHER CHLORINATED ORGANIC COMPOUNDS BY AEROBACTER AEROGENES.

J L Mendel A K Klein J T Chen M S Walton  
*Ass Offic Anal Chem J* 50(4):897-903  
Aug 1967 381 AS7

Aerobacter aerogenes, Aldrin, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Insecticide residues, Metabolism, Methoxychlor, Tde.

Abstract: aerobacter aerogenes can convert o,p'- and p,p'-DDT to their respective compounds. The organism is apparently not the mediator for the conversion of o,p'-DDT to p,p'-DDT in the rat. aldrin and dieldrin are not affected by this organism.

#### 803-69

#### DDT RESIDUE STUDIES ON PEPPERS.

R E Menzer P P Burbutis R N Hofmaster L P Ditman  
*J Econ Entomol* 53(4):622-624, BIBL., TABS.  
Aug 1960 421 J822  
DDT, Redpeppers (vegetable), Residues.

#### 804-69

#### DDT RESIDUE STUDIES ON PEPPERS.

R E Menzer P P Burbutis R N Hofmaster L P Ditman  
*J Sci Food Agr* 12(1):1-20-4  
Jan 1961 382 SO12  
DDT, Pesticide residues, Redpeppers (vegetable).

#### 805-69

#### EFFECT OF THYROPROTEIN AND A LOW-ENERGY RATION ON REMOVAL OF DDT FROM LACTATING DAIRY COWS.

D D Miller  
*J Dairy Sci* 50(9):1444-1447 REF  
Sep 1967 44.8 J822

Dairy cattle, DDT, Insecticide residues, Lactation, Thyroprotein.

Abstract

#### 806-69

#### COLLABORATIVE STUDIES ON THE ANALYSIS OF PESTICIDE RESIDUES.

E J Miller I Granhall J W Cook  
*Residue Rev* 7:114-129, 5 REFS., 7 TABS., 1 FIG.  
1964 389.9 R314



## RESIDUES

807-69

Benzene hexachloride, Demeton-methyl, DDT, Malathion, Mercury, Methyl demeton, Pesticide residues.

807-69

REPORT ON CHLORINATED INSECTICIDES AND MITICIDES.

A Mills

*Ass Offic Anal Chem J* 47(1):74

Feb 1964 381 AS7

Chromatography, DDT, Pesticide residues, Spectrophotometry.

808-69

DDT AND DIELDRIN RESIDUES ON PASTURE FOLLOWING DUSTING AND SPRAYING.

E J Mills C T Johnson

*J Sci Food Agr* 15(7):11-24-7, 10 REFS.

Jul 1964 382 SO12

Dieldrin, DDT, Dusting, Insecticide residues, Pastures, Spraying.

809-69

COLLABORATIVE STUDY OF CERTAIN CHLORINATED ORGANIC PESTICIDES IN DAIRY PRODUCTS.

P A Mills

*Ass Offic Anal Chem J* 44(2):171-177, 1 TAB.

May 1961 381 AS7

Benzene hexachloride, DDE, DDT, Heptachlor epoxide, Lindane, Milk, TDE.

810-69

SECTION C: PESTICIDE RESIDUE CONTENT.

P A Mills

*Ass Offic Anal Chem J* 46(4):762-767

Aug 1963 381 AS7

Aldrin, Chlordane, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, Dicofol, Dieldrin, DDT, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Methoxychlor, Pesticide residues, Tde, Toxaphene.

811-69

PESTICIDE RESIDUES IN COMMERCIAL ANIMAL FEEDS.

J P Minyard E R Jackson

*Ass Offic Anal Chem J* 46(5):843-859

Oct 1963 381 AS7

Benzene hexachloride, Chlordane, DDT, Heptachlor, Heptachlor epoxide, Methoxychlor, Pesticide residues, Toxaphene.

812-69

DDT, IN: ZWEIG, ANALYTICAL METHODS FOR PESTICIDES, PLANT GROWTH REGULATORS, AND FOOD ADDITIVES. VOL. II. INSECTICIDES. 395 Z9.

R Miskus

97-107, REF. ACADEMIC PRESS, NEW YORK

1964

Chlorinated hydrocarbons, DDT, Food contamination, Insecticide residues.

813-69

DDT, IN: ZWEIG, ANALYTICAL METHODS FOR PESTICIDES, PLANT GROWTH REGULATORS, AND FOOD ADDITIVES. VOL. II. INSECTICIDES. 395 Z9.

R Miskus

97-107, REF. ACADEMIC PRESS, NEW YORK

1964

Chlorinated hydrocarbons, DDT, Food contamination, Insecticide residues.

814-69

ONE-STEP CLEANUP OF CHLORINATED INSECTICIDE RESIDUES BY CHROMATOGRAPHY ON CARBON-CELITE MIXTURES.

W A Moats

*Ass Offic Anal Chem J* 47(3):587-591, 11 REFS.,

2 TABS.

Jun 1964 381 AS7

Chromatography, DDT, Pesticide residues.

815-69

ACTIVATION STUDIES ON FLORISIL.

R Moddes

*Ass Offic Anal Chem J* 44(2):169-170

May 1961 381 AS7

## BIBLIOGRAPHY

DDT, Florisil, Heptachlor, Heptachlor epoxide, Lindane.

816-69

RESIDUE ANALYSIS IN THE DAIRY INDUSTRY. IN: ZWEIG, ANALYTICAL METHODS FOR PESTICIDES, PLANT GROWTH REGULATORS, AND FOOD ADDITIVES. VOL. I. PRINCIPLES, METHODS, AND GENERAL APPLICATION. 395 Z9.

R A Moffitt

545-570, REF. ACADEMIC PRESS, NEW YORK

1963

Benzene hexachloride, Carbamates, Chromatography, Dairy industry, Dairy products, DDT, Food contamination, Methoxychlor, Organophosphorus compounds, Pesticide residues, Spectrophotometry, Sulfur compounds.

817-69

RESIDUE ANALYSIS IN THE DAIRY INDUSTRY. IN: ZWEIG, ANALYTICAL METHODS FOR PESTICIDES, PLANT GROWTH REGULATORS, AND FOOD ADDITIVES. VOL. I. PRINCIPLES, METHODS, AND GENERAL APPLICATION. 395 Z9.

R A Moffitt

P.545-570 REF

1963

Benzene hexachloride, Carbamates, Chromatography, Dairy industry, Dairy products, DDT, Food contamination, Methoxychlor, Organophosphorus compounds, Pesticide residues, Spectrophotometry, Sulfur compounds.

818-69

THE TOXICITY AND SUBLETHAL EFFECTS OF P P-DDT AND DIELDRIN TO AGLAIS URticae (L.) (LEPIDOPTERA: NYMPHALIDAE) AND CHIORTHIPPUS BRUNNEUS (THUNBERG) (SALTATORIA:ACRIDIDAE).

F Moriarty

*Ann Appl Biol* 62(3):371-293 REF

Dec 1968 442.8 AN72

Acrididae, Dieldrin, DDT, Fertility, Morphology, Nymphalidae, Research, Toxicology.

819-69

INVESTIGATION TO DETERMINE THE RESPECTIVE RESIDUE AMOUNTS OF DDT AND ITS ANALOGUES IN THE MILK AND BACK FAT OF SELECTED DAIRY ANIMALS.

R J Moubry G R Myrdal W E Lyle

*Pest Mont J* 2(1):47-50

Jun 1968 SB951.A1P41

Dairy cattle, Dichloro-2,2-bis(p-chlorophenyl)ethylene, 1,1-, DDT, Fats, Milk, Milk analysis, Pesticide residues.

820-69

SCREENING METHOD FOR THE DETECTION OF CHLORINATED HYDROCARBON PESTICIDE RESIDUES IN THE FAT OF MILK, CHEESE, AND BUTTER.

R P Moubry G R Myrdal H P Jensen

*Ass Offic Anal Chem J* 50(4):885-888

Aug 1967 381 AS7

Benzene hexachloride, Butter, Cheese, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, Insecticide residues, Milk fat.

Abstract

821-69

LOSS OF CHLORINATED HYDROCARBON INSECTICIDES FROM SOIL SURFACE IN THE FIELD.

M S Mulla

*J Econ Entomol* 53(4):650-655, TABS.

Aug 1960 421 J822

Aldrin, Chlorinated hydrocarbons, DDT, Endrin, Hippelates, Insecticide residues, Soils.

822-69

RESIDUES IN VEGETABLE CROPS FOLLOWING SOIL APPLICATIONS OF INSECTICIDES.

R P Muns M W Stone F Foley

*J Econ Entomol* 53(5):832-834, 9 REFS., 1 TAB.

Oct 1960 421 J822

Aldrin, Carrots, Chlordane, DDT, Potatoes, Residues, Rutabagas, Soils, Sweetpotatoes, Toxaphene.

823-69

DDT RESIDUES ABSORBED FROM ORGANIC DETRITUS BY FIDDLER CRABS.

W E Odum G M Woodwell C F Wurster

*Science* 164(3879):576-577 REF

02 May 1969 470 SCI2

Absorption, Chlorinated hydrocarbons, Crabs, DDT, Insecticide residues, Metabolites.

824-69

DDT RESIDUES ABSORBED FROM ORGANIC DETRITUS BY FIDDLER CRABS.

W E Odum G M Woodwell C F Wurster

*Science* 164(3879):576-577 REF

02 May 1969 470 SCI2

Absorption, Chlorinated hydrocarbons, Crabs, DDT, Metabolites, Pesticide residues.

825-69

EFFECT OF DDT ON TEMPERATURE SELECTION BY YOUNG ATLANTIC SALMON, SALMON SOLAR. (ABSTRACT).

D M Ogilvie J M Anderson

*Pesticide Progr* 5(3):76

May 1967 79.8 P434

DDT, Dosage, Pesticide residues, Salmon, Temperature. This was the authors abstract taken from Jour. Fish. Res. Board of Canada 22 (2): 503-512. 1965.

826-69

DETECTION AND ESTIMATION OF CHLORINATED PESTICIDES IN EGGS.

J H Onley P A Mills

*Ass Offic Anal Chem J* 45(4):983-987, 5 REFS.,

2 TABS.

Nov 1962 381 AS7

Assay, Chromatography, Dieldrin, DDT, Eggs.

827-69

TISSUE AND FAT PREPARATION FOR PESTICIDE DETERMINATION BY GAS CHROMATOGRAPHY.

K D Parker M L Dewey D M DeVries S C Lau

*Toxicol Appl Pharmacol* 7(5):719-726, BIBL. 725-

726

Sep 1965 391.8 T662

Adipose tissue (animals), Chromatography, DDE, Pesticide residues.

828-69

RETENTION AND VOATILIZATION OF LINDANE AND DDT IN PRESENCE OF ORGANIC COLLOIDS ISOLATED FROM SOILS AND LEONARDITE.

L K Porter W E Beard

*J Agr Food Chem* 16(2,MAR-APR):344-347

1968 381 J8223

Colloids, DDT, Laumontite, Lindane, Pesticide residues, Radioactivity, Soils, Temperature, Volatile substances.

829-69

DDT STORAGE IN THE U. S. POPULATION. (ABSTRACT).

G E Quinby W J Hayes J F Armstrong W F

Durham

*Pesticide Progr* 5(3):77

May 1967 79.8 P434

DDT, Ethylene, Fats, Humans, Insecticide residues, Storage. This was the author's abstract from Jour. Amer. Med. Assoc. 191:175-179. 1965.

830-69

THE DETERMINATION OF PESTICIDES IN TISSUES WITH THE ELECTRON CAPTURE DETECTOR WITHOUT PRIOR CLEANUP.

J L Radomski V Fiserova-Bergerova

34(12):934-939

Dec 1965

Aldrin, Chromatography, Cleanup, Dieldrin, DDT, Electron capture, Lindane. Not in Nat. agr. libr. in: Industrial Medicine and Surgery (see vol. and pp. above); at Libr. Cong., RC963 .A37.

- 831-69**  
**METALS, OTHER ELEMENTS, AND RESIDUES IN FOODS.**  
L L Ramsey  
*Ass Offic Anal Chem J* 44(2):161-163  
May 1961 381 AS7  
Aldrin, Allethrin, Amitrole, Aramite, Azinphos-methyl, Benzene hexachloride, Biphenyl, Captan, Chlorbenside, Chlordane, Chlorobenzilate, Dairy products, Dichlone, Dicofol, Dieldrin, DDT, Endrin, Fluorine, Food contamination, Glyodin, Heptachlor epoxide, Lindane, Malathion, Methoxychlor, Nicotine, Pesticide residues, Piperonyl butoxide, Sulphenone, Thiram, TDE, Toxaphene, Zinc, 2,4-d.
- 832-69**  
**FACTORS CONTRIBUTING TO THE LOSS OF INSECTICIDE DEPOSITS ON CATTLE.**  
R H Roberts W F Chamberlain  
*J Econ Entomol* 56(5):614-618, TABS.  
Oct 1963 421 J822  
Cattle, Insecticide deposits.
- 833-69**  
**NOTE ON IMPROVED EXTRACTION FOR CHLORINATED PESTICIDE RESIDUES IN OYSTERS.**  
E A Robertson R M Tyd  
*Ass Offic Anal Chem J* 49(3):683-684  
Jun 1966 381 AS7  
Chlorinated hydrocarbons, DDT, Food contamination, Heptachlor, Heptachlor epoxide, Insecticide residues, Oysters.
- 834-69**  
**NOTE ON IMPROVED EXTRACTION FOR CHLORINATED PESTICIDE RESIDUES IN OYSTERS.**  
E A Robertson R M Tyo  
*Ass Offic Anal Chem J* 49(3):683-684  
Jun 1966 381 AS7  
Chlorinated hydrocarbons, DDT, Food contamination, Heptachlor, Heptachlor epoxide, Insecticide residues, Oysters.
- 835-69**  
**DDT RESIDUES IN BEEF COWS FED APPLE POMACE.**  
T S Rumsey K P Bovard S M Shepherd B M Priode  
*J Anim Sci* 28(3):418-424 REF  
Mar 1969 49 J82  
Beef cattle, DDT, Feeding, Insecticide residues, Meat.
- 836-69**  
**DISTRIBUTION OF P,P'-DDT RESIDUES IN ADIPOSE AND MUSCLE TISSUES OF BEEF CATTLE.**  
T S Rumsey P A Putnam R E Davis C Corley  
*J Agr Food Chem* 15(5):898-901  
Sep 1967 381 J8223  
Cattle, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Insecticide residues, Pesticide analysis, Tde.  
Abstract
- 837-69**  
**QUANTITATIVE PAPER CHROMATOGRAPHY OF CHLORINATED INSECTICIDES IN SOILS.**  
J P San Antonio  
*J Sci Food Agr* 12(5):1-224-5  
May 1961 382 S012  
Aldrin, Chromatography, DDT, Heptachlor, Lindane, Pesticide residues, Soils.
- 838-69**  
**RAPID SCREENING METHOD FOR DDT IN MILK WITH GAS CHROMATOGRAPHY.**  
M L Schafer K A Busch J E Campbell  
*J Dairy Sci* 46(10):1025-1032, REF.  
Oct 1963 44.8 J822  
Chlorinated hydrocarbons, DDT, Food contamination, Insecticide residues, Milk.  
Abstract
- 839-69**  
**RAPID SCREENING METHOD FOR DDT IN MILK WITH GAS CHROMATOGRAPHY.**  
M L Schafer K A Busch J E Campbell  
*J Dairy Sci* 46(10):1025-1032, REF.  
Oct 1963 44.8 J822  
Chlorinated hydrocarbons, DDT, Food contamination, Insecticide residues, Milk.  
Abstract
- 840-69**  
**PESTICIDES IN SOIL. MONITORING FOR CHLORINATED HYDROCARBON PESTICIDES IN SOIL AND ROOT CROPS IN THE EASTERN STATES IN 1965.**  
W L Seal L H Dawsey G E Cavin  
*Pest Mont J* 1(3):22-25  
Dec 1967 SB951.A1P41  
Chlorinated hydrocarbons, Chromatography, Crops, Dieldrin, DDT, Electron capture, Hydrocarbons, Insecticides, Pesticide residues, Roots, Soils, Tolerances.
- 841-69**  
**SEPARATION, IDENTIFICATION, AND MEASUREMENT OF DDT AND ITS METABOLITES.**  
M Siewierski K Helrich  
*Ass Offic Anal Chem J* 50(3):627-633  
Jun 1967 381 AS7  
Chromatography, Degradation, DDT, Infrared spectra, Insecticide residues, Metabolites, Pesticide analysis.
- 842-69**  
**ESTIMATION OF CHLORINATED PESTICIDE RESIDUES IN ANIMAL AND VEGETABLE OILS.**  
J Singh J D Lanthier  
*Ass Offic Anal Chem J* 51(1):45-47 REF  
Jan 1968 381 AS7  
Aluminum oxide, Chlorinated hydrocarbons, Chromatography, DDT, Electron capture, Fats, Oils, Pesticide residues.
- 843-69**  
**DDT RESIDUES IN ADELIE PENGUINS AND A CRABEATER SEAL FROM ANTARCTICA.**  
W J L Sladen C M Menzie W L Reichel  
*Nature* 210(5037):670-673, REF.  
14 May 1966 472 N21  
Adipose tissue (animals), Antarctica, Birds, Chlorinated hydrocarbons, Chromatography, DDT, Insecticide residues, Liver, Tde, Wildlife.
- 844-69**  
**DDT RESIDUES IN ADELIE PENGUINS AND A CRABEATER SEAL FROM ANTARCTICA.**  
W J L Sladen C M Menzie W L Reichel  
*Nature* 210(5037):670-673 REF  
14 May 1966 472 N21  
Adipose tissue (animals), Antarctica, Birds, Chlorinated hydrocarbons, Chromatography, DDT, Insecticide residues, Liver, Penguins, TDE, Wildlife.
- 845-69**  
**PESTICIDE RESIDUES.**  
K J Smith  
*Us Agr Res Serv Ars-72 (72-69):69-74*  
Jan 1969 A381 R31  
Agricultural industries, Cotton, DDT, Food contamination, Pesticide residues, Pesticides, Tolerances.
- 846-69**  
**LONG-TERM MOVEMENT OF DDT APPLIED TO SOIL FOR TERMITE CONTROL.**  
V K Smith  
*Pest Mont J* 2(1):55-57  
Jun 1968 SB951.A1P41  
Chemical control (insects), DDT, Insecticide residues, Soil analysis, Termites, Translocation.
- 847-69**  
**PROBLEMS IN MONITORING DDT AND ITS METABOLITES IN THE ENVIRONMENT.**  
D A Spencer  
*Pest Mont J* 1(2):54-57 REF  
Sep 1967 SB951.A1P41  
Aldrin, Bacteria, Chemicals, Chlorinated hydrocarbons, Dieldrin, DDT, Endrin, Environment, Enzymes, Heptachlor, Lindane, Metabolites, Microorganisms, Pesticide residues, Pesticides, Porphyryns, Soil fungi, Storage, Temperature, TDE.
- 848-69**  
**PERSISTENCE OF CHLORINATED HYDROCARBON INSECTICIDE RESIDUES IN CHICKEN TISSUES AND EGGS.**  
W J Stadelman B J Liska B E Langlois G C Mostert A R Stemp  
*Poultry Sci* 44(2):435-437, 2 TABS.  
Mar 1965 47.8 AM33P  
Chickens, Dieldrin, DDT, Eggs, Heptachlor, Lindane, Residues, Tissues.
- 849-69**  
**PERSISTENCE OF CHLORINATED HYDROCARBON INSECTICIDE RESIDUES IN CHICKEN TISSUES AND EGGS. (ABSTRACT).**  
W J Stadelman B J Liska B E Langlois G C Mostert A R Stemp  
*Pesticide Progr* 5(3):80  
May 1967 79.8 P434  
Chickens, Dieldrin, DDT, Eggs, Feed, Heptachlor, Insecticide residues, Lindane, Tissues. This was the author's abstract taken from Poultry science 44 (2): 435-437. 1965.
- 850-69**  
**PROBLEMS IN WHO ON PESTICIDE RESIDUES. IN: RADIOISOTOPES IN THE DETECTION OF PESTICIDE RESIDUES: PROCEEDINGS OF A PANEL VIENNA 12-16 APRIL 1965. SB953.P32.**  
A R Stiles  
108-109 INTERNATIONAL ATOMIC ENERGY AGENCY  
1966  
Culicidae, DDT, Food contamination, Pesticide analysis, Water pollution.
- 851-69**  
**RESIDUES IN VEGETABLE CROPS FOLLOWING SOIL APPLICATIONS OF INSECTICIDES.**  
M W Stone F Foley  
*J Sci Food Agr* 12(3):1-128-8  
Mar 1961 382 S012  
Aldrin, Chlordane, Dieldrin, DDT, Insecticide residues, Toxaphene, Vegetables.
- 852-69**  
**EXTRACTION OF MILK FOR DDT DETERMINATION: ONE-DAY COMPLETE METHOD.**  
R W Storherr P A Mills  
*Ass Offic Anal Chem J* 43(1):81-82  
Feb 1960 381 AS7  
DDT, Milk analysis.
- 853-69**  
**SECRETION OF DDT BY LACTATING COWS FED THYROPROTEIN.**  
J W Stull W H Brown Whiting L M Sullivan M Milbrath J M Witt  
*J Dairy Sci* 51(1):56-59 REF  
Jan 1968 44.8 J822  
Cattle, Chlorinated hydrocarbons, DDT, Food contamination, Injections, Milk, Thyroprotein.  
Abstract. Milk and milk fat yield increased and body weight decreased in animals getting thyroprotein. The pesticide content of milk decreased to 2 ppm in controls, but only to 4 ppm in the thyroprotein-fed group.
- 854-69**  
**RESIDUES OF DDT AND ITS DERIVATIVES IN THE FAT TISSUES OF SOME MARKET ANIMALS.**  
J Svoboda J Kubat  
*Brno Acta Univ Agr Fac Vet* 36(2):233-240 REF  
1967 SF604 B7  
Adipose tissue (animals), Chlorinated hydrocarbons, DDT, Livestock, Marketing, Pesticide residues, Czech summary.



## RESIDUES

855-69

**855-69**  
**DDT DEPOSITS ON GRAPES AS AFFECTED BY GROWTH AND WEATHERING.**  
E F Taschenberg A W Avens  
*J Econ Entomol* 53(2):269-276, BIBL., TABS.  
Apr 1960 421 J822  
DDT, Grapes, Plant growth inhibitors, Residues, Weather.

**856-69**  
**PESTICIDE RESIDUES IN DIARY PRODUCE.**  
*Tasmanian J Agr* 38(4):318-319  
Nov 1967 23 T182T  
Dairy products, DDT, Food contamination, Insecticide residues, Lindane, Pastures, Pest control.

**857-69**  
**ORGANOCHLORINE PESTICIDES IN ANTARCTICA.**  
J O Tatton J H A Ruzicka  
*Nature* 215 (5099), 346-348, MAP REF  
Jul 1967 472 N21  
Antarctica, Birds, DDE, DDT, Fish, Insecticide residues, Organophosphorus compounds.

**858-69**  
**PESTICIDE LEVELS AND FLUCTUATION IN SOIL BACTERIA IN AN IRRIGATED FIELD AND A POND OF SOUTHWEST TEXAS.**  
R G Taylor H G Applegate  
*Southwest Natur* 13(4):393-400 REF  
31 Dec 1968 409.6 SO8  
Bacteria, Biological assay, Chemical analysis, DDT, Pesticide residues, Soil bacteria.

**859-69**  
**PESTICIDE RESIDUES ON FRUIT. V. HARVEST RESIDUES OF CODLING MOTH INSECTICIDES ON APPLES.**  
R P Tew J M Sillibourne A M Silva-Fernandes  
*J Sci Food Agr* 12(10):666-674, BIBL. 674, TABS.  
Oct 1961 382 SO12  
Apples, Carpocapsa pomonella, Fruit, Harvesting, Lead arsenate, Pesticide residues.

**860-69**  
**PESTICIDE RESIDUES - USDA'S POSITION.**  
A Tufano  
*West Tobacco J* 96(3):46,48-49  
Mar 1969 286.89 W52  
Chemical control (insects), Chlorinated hydrocarbons, DDT, Foreign trade, Light traps, Pesticide residues, Pesticides, Regulation (pesticides), TDE, Tobacco.

**861-69**  
**DDT. PROPOSED ESTABLISHMENT OF PESTICIDE AND FOOD ADDITIVE TOLERANCES.**  
*Fed Regist* 32(112):858379  
10 Jun 1967 L1.451  
DDT, Food additives, Hops, Insecticide residues.

**862-69**  
**DDT: ESTABLISHMENT OF PESTICIDE AND FOOD ADDITIVE TOLERANCES.**  
*Fed Regist* 32(147):11157  
01 Aug 1967 L1.451  
DDT, Hops, Insecticide residues, Tolerances.

**863-69**  
**PROPOSED REDUCTION OF TOLERANCES IN OR ON RAW AGRICULTURAL COMMODITIES.**  
*Fed Regist* 33(28):2787-2788  
09 Feb 1968 L1.451  
Agricultural products, DDT, Insecticide residues, Tolerances.

**864-69**  
**TOXIC RESIDUES IN MARINE FOODS.**  
*U S Fish Wildlife Serv* 260:14  
Jun 1967 156.2 C49  
DDT, Feeding, Fish, Insecticide residues.

**865-69**  
**ACCUMULATION OF DDT IN FRUIT PLANTINGS WHEN USED CONTINUOUSLY.**  
V P Vasil Ev

## BIBLIOGRAPHY

*Horticultural Abs* 38(3):696  
Sep 1968 241 IM74  
DDT, Fruit, Pesticide residues.

**866-69**  
**PESTICIDES IN PEOPLE. STORAGE OF DDT IN THE PEOPLE OF ISRAEL.**  
M Wassermann D Wassermann L Zeller Mayer M Gon  
*Pest Mont J* K2:15-20 REF  
Sep 1967 SB951.A1P41  
Air pollution, Benzene hexachloride, Chlorinated hydrocarbons, Chromatography, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, Dieldrin, DDT, Heptachlor epoxide, Human diseases, Measurement, Pesticides, Storage, Tables (data), TDE.

**867-69**  
**DETERMINATION OF CHLORINATED PESTICIDE RESIDUES BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.**  
J O Watts A K Klein  
*Ass Offic Anal Chem J* 45(1):102-108, 12 REFS.  
Feb 1962 381 AS7  
Chromatography, DDT, Pesticide residues.

**868-69**  
**DISTRIBUTION OF HEPTACHLOR RESIDUES IN POND ECOSYSTEMS IN SOUTHWESTERN VIRGINIA.**  
W M Weatherholtz G W Cornwell R W Young R E Webb  
*J Agr Food Chem* 15(4):667-670  
Jul 1967 381 J8223  
DDT, Ecology, Heptachlor, Insecticide residues, Ponds.

Abstract  
**869-69**  
**COMPARISON OF FOUR EXTRACTION AND CLEANUP PROCEDURES FOR CHLORINATED PESTICIDE RESIDUES IN EGGS.**  
J R Wessel  
*Ass Offic Anal Chem J* 52(1):172-175  
Jan 1969 381 AS7

Chemical analysis, Chlorinated hydrocarbons, Dieldrin, DDT, Eggs, Endrin, Heptachlor epoxide, Pesticide residues.

**870-69**  
**RESIDUALS OF PESTICIDES IN CULTIVATED MUSHROOMS. (FR)**  
A William P Martens  
*Gac Vet* 6:507-514 REF  
1965 41.8 G112  
Aldrin, Chlorinated hydrocarbons, Diazinon, Dimethoate, DDT, Fumigation, Lindane, Mushrooms, Organophosphorus compounds, Parathion, Pesticide application, Pesticide residues, Sulfotepp. English and German summaries.

**871-69**  
**PESTICIDE RESIDUES IN CULTIVATED MUSHROOMS. (FR)**  
A William P Martens  
*Inacol* 18(11):437-448 REF  
Nov 1967 TX599.15  
Aldrin, Chlorinated hydrocarbons, Diazinon, Dimethoate, DDT, Dosage, Economic plants, Fumigation, Lindane, Mushrooms, Organophosphorus compounds, Parathion, Pesticide residues, Sulfotepp. English and German summaries.

**872-69**  
**RESIDUES IN MILK OF COWS FED RATIONS CONTAINING LOW CONCENTRATIONS OF FIVE CHLORINATED HYDROCARBON PESTICIDES.**  
S Williams P A Mills R E McDowell  
*Ass Offic Anal Chem J* 47(6):1124-1128, 9 REFS., 3 TABS.  
Dec 1964 381 AS7  
DDT, Feed, Milk, Pesticide residues.

**873-69**  
**PESTICIDE RESIDUES.**  
S Williams

*Anal Chem* 37(5):130R-142R, 201 REFS.  
Apr 1965 381 J825A  
Chlorine, Dieldrin, DDT, Heptachlor, Heptachlor epoxide, Insecticide residues, Lindane, Perthane.

**874-69**  
**RESPIRATORY EXPOSURE OF DAIRY ANIMALS TO PESTICIDES.**  
J M Witt F M Whiting W H Brown  
*Advances Chem Ser* 60:99-109  
1966 381 AD93  
Cattle, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Pesticide residues, Respiratory system.

**875-69**  
**RESIDUES AND CHEMOSTERILANTS: RESIDUES IN MILK.**  
J M Witt F M Whiting W H Brown  
*Agr Chem* 20(10):32-33  
Oct 1965 381 AG8  
DDT, Milk.

**876-69**  
**TOXIC CHEMICALS.**  
M Woodford  
*Vet Rec* 76(6):189, 1 REF.  
08 Feb 1964 41.8 V641  
Benzene hexachloride, DDT, Lindane, Pesticide residues.

**877-69**  
**DDT RESIDUES AND DECLINING REPRODUCTION IN BERMUDA PETREL.**  
C F Wurster D B Wingate  
*Science* 159(3818):979-981 REF  
01 Mar 1968 470 SCI2  
Animal physiology, Birds, DDT, Pesticide residues, Reproduction.

**878-69**  
**DDT REDUCES PHOTOSYNTHESIS BY MARINE PHYTOPLANKTON.**  
C F Wurster  
*Science* 159(3822):1474-1475 REF  
29 Mar 1968 470 SCI2  
Chlorinated hydrocarbons, DDT, Ecology, Marine biology, Pesticide residues, Photosynthesis, Plankton, Water pollution.

**879-69**  
**INSECTICIDE RESIDUES IN MILK: DDT RESIDUES IN MILK FROM DAIRY COWS FED LOW LEVELS OF DDT IN THEIR DAILY RATIONS.**  
G Zweig L M Smith S A Peoples R Cox  
*J Agr Food Chem* 9(6):481-484  
Nov 1961 381 J8223  
Dairy cattle, DDT, Insecticide residues, Milk.

## TOXICOLOGY

**880-69**  
**DDT AND RELATED CHLORINATED HYDROCARBONS: THEIR METABOLISM IN THE CHICK AND THEIR INDUCTION OF MICROSOMAL ENZYMES.**  
M B Abou-Donia  
*Diss Abstr Sect B* 28(10):3937B  
Apr 1968 Z5055.U49D53  
Carbamates, Chick embryos, Chlorinated hydrocarbons, Chromatography, DDT, Eggs, Infrared spectra, Insecticides, Metabolism, Microsomes.

**881-69**  
**EFFECT OF DDT OR PARATHION ON CONDITION AVOIDANCE RESPONSE OF OFFSPRING FROM DDT OR PARATHION TREATED MOTHERS. (ABSTRACT).**  
G M Al-Hachim G B Fink  
*Excerpta Med Pharm Toxicol* 21(12):600  
Dec 1968 241.64 EX23  
Animal adaptation, Breeding, DDT, Mice, Parathion, Reproduction, Toxicology. From Psychopharmacologia (Berl.), 1968, 12/5, (424-427).

- 882-69**  
SURVIVAL OF FISH IN 164 HERBICIDES, INSECTICIDES, FUNGICIDES, WETTING AGENTS AND MISCELLANEOUS SUBSTANCES.  
J S Alabaster  
*Int Pest Contr* 11(2,MAR-APR):29-35  
Mar 1969 79.8 P432  
DDT, Fish, Fungicides, Herbicides, Insecticides, Water.
- 883-69**  
EFFECT OF SUBLETHAL DDT ON THE LATERAL LINE OF BROOK TROUT, *SALVELINUS FONTINALIS*.  
J M Anderson  
*Can Fish Res Board J* 25(12):2677-2682  
Dec 1968 442.9 C16J  
Animal physiology, DDT, Mortality, Nervous system, Temperature, Toxicology, Trout.  
DDT makes the lateral line nerve of the trout, *Salvelinus fontinalis*, hypersensitive to low frequency pressure waves and cold temperatures.
- 884-69**  
DDT: SUBLETHAL EFFECTS ON BROOK TROUT NERVOUS SYSTEM.  
J M Anderson M R Peterson  
*Science* 164(3878):440-441  
25 Apr 1969 470 SCI2  
DDT, Dosage, Nervous system, Pesticides, Temperature, Toxicology, Trout.
- 885-69**  
DDT-METABOLISM AND EXCRETION IN *COLEOMEGLILLA MACULATA* DE GEER.  
Y H Atallah W C Nettles Jr  
*J Econ Entomol* 59(3):560-564  
Jun 1966 421 J822  
*Coleomegilla maculata*, DDT, Excreta, Metabolism.
- 886-69**  
ECOLOGICAL AND NUTRITIONAL STUDIES ON *COLEOMEGLILLA MACULATA* DEGEER (COLEOPTERA: COCCINELLIDAE). III. THE EFFECT OF DDT, TOXAPHENE, AND ENDRIN ON THE REPRODUCTIVE AND SURVIVAL POTENTIALS.  
Y H Atallah L D Newsom  
*J Econ Entomol* 59(5):1181-1187  
Oct 1966 421 J822  
*Coleomegilla maculata*, DDT, Ecology, Endrin, Mortality, Nutrition, Reproduction, Toxaphene.
- 887-69**  
THE EFFECTS OF AN ACUTE DDT EXPOSURE ON THE SPONTANEOUS ELECTRICAL ACTIVITY OF GOLDFISH CEREBELLUM.  
A E Aubin P H Johansen  
*Can J Zool* 47(2):163-166  
Mar 1969 470 C16D  
Brain, DDT, Electrophysiology, Fish, Nervous system, Poisoning, Symptomatology.
- 888-69**  
COMPARATIVE TOXICITIES OF INSECTICIDES TO HOUSE FLY LARVAE AND *MACROCHELES MUSCAEDOMESTICA*, A MITE PREDATOR OF THE HOUSE FLY.  
R C Axtell  
*J Econ Entomol* 59(5):1128-1130  
Oct 1966 421 J822  
Chlorinated hydrocarbons, Insecticides, Larvae, Lindane, *Macrocheles muscaedomesticae*, Mites, *Musca domestica*, Naled, Predaceous insects, Ronnel, Toxicity, Trichlorfon.
- 889-69**  
STUDIES OF CHOLINE ACETYLASE INHIBITION BY DDA (DICHLORODIPHENYLACETIC ACID) AND ITS POSSIBLE RELATIONSHIP TO DDT TOXICITY.  
M J Bleiberg M Cefaratti N Klinman P Kornblith  
*Toxicol Appl Pharmacol* 4(3):292-312, BIBL. 310-312, PL.  
May 1962 391.8 T662  
Choline, Cholinesterases, DDT, DDA.
- 890-69**  
SEARCH FOR NEW INSECTICIDES.  
M N Borle  
*Pocna Agr Coll Mag* 58(2-3,JUN-SEP):49-54  
REF  
1968 22 P79  
Animals, Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, DDT, Humans, Insect biochemistry, Insect diseases, Insect physiology, Insecticidal plants, Insecticide resistant insects, Insecticides, Poisoning, Research.
- 891-69**  
SUSCEPTIBILITY AND RESISTANCE OF MOSQUITO FISH TO SEVERAL INSECTICIDES.  
C E Boyd D E Ferguson  
*J Sci Food Agr* 15(12):11-294-4  
Dec 1964 382 SO12  
Dieldrin, DDT, *Gambusia*, Heptachlor, Mortality.
- 892-69**  
INTERACTION OF DDT AND THE GASTROINTESTINAL MICROFLORA OF THE RAT.  
R C Braunberg V Beck  
*J Agr Food Chem* 16(3):451-453  
May 1968 381 J8223  
Bacteria, DDT, Feces, Gastrointestinal system, Metabolites, Rats.
- 893-69**  
KINETICS OF DDT IN A MARINE FOOD CHAIN.  
*U S Fish Wildlife Serv* 260:14  
Jun 1967 156.2 C49  
Aquatic animals, Aquatic plants, DDT, Insecticide residues.
- 894-69**  
LABORATORY EVALUATION OF INSECTICIDES AGAINST THE CIGARETTE BEETLE.  
D P Childs  
*J Econ Entomol* 59(4):846-849, TABS.  
Aug 1966 421 J822  
American Cyanamid 47300, Carbaryl, Dichlorvos, DDT, Fenthion, Geigy 12968, Lindane, Malathion, Pyrethrum-piperonyl butoxide, Shell SD-9020, Shell SD-9098, Velsicol 1-bromochlordene.
- 895-69**  
EFFECTS OF INSECTICIDES ON ALGAE.  
A E Christie  
*Water Sewage Works* 116(5):172-176 REF  
May 1969 290.8 M92  
Algae, Carbaryl, DDT, Malathion, Metabolism, Radioisotopes, Toxicology.
- 896-69**  
STUDIES OF DNA, RNA, AND PROTEIN SYNTHESIS IN HELA S CELLS EXPOSED TO DDT AND DIELDRIN.  
R A Chung I-Lo Huang R W Brown  
*J Agr Food Chem* 15(3):497-500  
May 1967 381 J8223  
Cells, Deoxyribonucleic acid, Dieldrin, DDT, Humans, Insecticide residues, Proteins, Ribonucleic acid, Toxicology.  
Abstract
- 897-69**  
AMINO ACID METABOLISM IN DDT-POISONED AMERICAN COCKROACHES.  
J J Corrigan C W Kearns  
*J Insect Physiol* 9(1):1-12, BIBL. 11-12  
Jan 1963 421 J825  
Amino acids, DDT, Metabolism.
- 898-69**  
STORAGE AND EXCRETION OF DDT IN STARVED RATS.  
W E Dale T B Gaines W J Hayes Jr  
*Toxicol Appl Pharmacol* 4(1):89-106, TABS.  
Jan 1962 391.8 T662  
DDT, Rats, Starvation.
- 899-69**  
OCCUPATIONAL HAZARDS.  
J Dater  
*Agr Chem* 23(4):44,46  
Apr 1968 381 AG8  
Accident prevention, DDT, Pesticides, Public health, Toxicology.
- 900-69**  
ENHANCED METABOLISM OF METHYPRYLON, MEPROBAMATE, AND CHLORDIAZEPOXIDE HYDROCHLORIDE AFTER CHRONIC FEEDING OF A LOW DIETARY LEVEL OF DDT TO MALE AND FEMALE RATS.  
P R Datta M J Nelson  
*Toxicol Appl Pharmacol* 13(3):346-352 REF  
Nov 1968 391.8 T662  
Animal metabolism, Chlorinated hydrocarbons, DDT, Feed, Pesticides, Rats, Testing, Tranquilizers. The following drugs were used: methyprylon, meprobamate and chlordiazepoxide hydrochloride.
- 901-69**  
THE EARLY EFFECTS OF LOW DDT DOSES ON THE NERVOUS SYSTEM IN ANIMAL EXPERIMENTS.  
I Desi I Farkas T Kemeny  
*Experientia* 24(1):51-52 REF  
15 Jan 1968 475 EX7  
Animal physiology, Biochemistry, Central nervous system, Chlorinated hydrocarbons, DDT, Insecticide residues, Rats, Toxicology.
- 902-69**  
KINETICS OF CL-36 DDT IN WILD WATER-FOWL.  
D L Dindal  
*Diss Abstr Sect B* 28(3):1267B  
Sep 1967 Z5055.U49D53  
Aquatic birds, DDT, Game birds, Radioactive tracers.
- 903-69**  
EFFECTS OF CERTAIN INSECTICIDES ON EARTHWORMS.  
C C Doane  
*J Econ Entomol* 55(3):416-418  
Jun 1962 421 J822  
Chemicals, Earthworms, Insecticides.
- 904-69**  
PESTICIDE RESIDUES IN FOODS IN RELATION TO HUMAN HEALTH.  
W F Durham  
*Residue Rev* 4:33-81, 192 REFS.  
1963 389.9 R314  
Amitrole, Arsenic, Carcinogens, Demeton, Dieldrin, DDT, Endrin, Epn, Food additives, Malathion, Parathion, Pesticide residues, Schradan.
- 905-69**  
PHARMACODYNAMIC STUDY OF DDT IN COCKERELS.  
D J Ecobichon P W Saschenbrecker  
*Can J Physiol Pharmacol* 46(5):785-794 REF  
Sep 1968 444.8 C16  
Animal physiology, Chickens, Chromatography, DDT, Insecticide residues, Metabolism, Poisoning, Toxicology. English abstract
- 906-69**  
THE EFFECT OF DDT IN THE DIET ON THE RESTING AND LOADING ELECTROCORTICOTRAN RECORD.  
I Farkas I Desi T Kemeny  
*Toxicol Appl Pharmacol* 12(3):518-525 REF  
May 1968 391.8 T662  
Aldosterone, Diet, DDT, Dosage, Drug therapy, Electrodes, Electrophysiology, Laboratory animals, Rats, Toxicology.
- 907-69**  
INSECTICIDE-RESISTANT FISHES: A POTENTIAL HAZARD TO CONSUMERS.  
D E Ferguson J L Ludke M T Finley G G Murphy  
*Miss Acad Sci J* 13:138-140  
1967 500 M697



Consumers, DDT, Endrin, Fish, Food poisoning, Insecticide residues, Insecticides, Metabolites, Resistance, Toxicology.

908-69

**TOXICITY OF DDT, DIELDRIN, MALATHION AND FENTHION TO RHODNIUS PROLIUXUS IN THE LABORATORY.**

I Fox I G Bayona H I Orozco  
*World Health Organ Bull* 35(6):974-976  
1966 449.9 W892B

Dieldrin, DDT, Fenthion, Malathion, Rhodnius prolixus.

909-69

**TREATMENT OF TOPICAL FUNGUS INFECTIONS WITH DICHLORODIPHENYL-TRICHLOROETHANE. PATENT 3,389,049.**

H E Frantz

*Us Patent Office Offic Gaz* 851(3):800

18 Jun 1968 156.65 OF2

DDT, Drug therapy, Fungicides, Human diseases.

910-69

**DEGRADATION AND DISAPPEARANCE OF ORTHO, PARA ISOMER OF TECHNICAL DDT IN LIVING AND DEAD AVIAN TISSUES.**

M C French D J Jefferies  
*Science* 165(3896):914-916 REF  
29 Aug 1969 470 SCI2

Animal metabolism, Birds, DDT, Insecticides, Isomers, Toxicology.

911-69

**THE ACUTE TOXICITY OF PESTICIDES TO RATS.**

T B Gaines

*Toxicol Appl Pharmacol* 2(1):88-99

Jan 1960 391.8 T662

Pesticides, Rats, Toxicology.

912-69

**THE UPTAKE FROM WATER BY SEVERAL SPECIES OF FRESH-WATER FISH OF P,P-DDT, DIELDRIN, AND LINDANE; THEIR TISSUE DISTRIBUTION AND ELIMINATION RATE.**

D H Gakstatter

*Diss Abstr Sect B* 27 11(03820B

May 1967 Z5055.U49D53

Aquariums, Dieldrin, DDT, Fish, Lindane, Water pollution.

913-69

**CHLOROPHENOTHANE (DDT) AND GLUTAMINE IN PENTYLENETETRAZOLE (CAR-DIAZOLE) CONVULSIONS IN THE RAT.**

A Ghazal

*Toxicol Appl Pharmacol* 6(6):627-630

Nov 1964 391.8 T662

DDA, DDT, Glutamine, DDE, Pentylene-tetrazole, Rats.

914-69

**DEGRADATION OF DDT IN ATLANTIC SALMON (SALMO SALAR).**

G L Greer U Paim

*Can Fish Res Board J* 25(11):2321-2326 REF

Nov 1968 442.9 C16J

Adsorption, Chemical analysis, Chromatography, DDT, Metabolism, Salmon.

DDT absorbed by Atlantic salmon (*Salmo salar*) was changed metabolically into the less toxic substances DDE and TDE within nine hours, as shown by thin-layer chromatography.

915-69

**THE APPARENT BINDING OF DDT TO TISSUE COMPONENTS.**

A Hatanaka B D Hilton R D O'Brien

*J Agr Food Chem* 15(5):854-857

Sep 1967 381 J8223

Blattidae, Chromatography, Dichloro-2,2-bis-(p-chlorophenyl) ethylene, 1,1-, DDT, Radioactive tracers, Rats, Tetrachloro-2,2-bis-(para-chlorophenyl)ethane, 1,1,1,2-, Tissues, Toxicology.

gy.

Abstract: sephadex chromatography of tissue homogenates incubated with C-14-DDT provided apparent evidence of binding of DDT with cockroach nerve cord and rat liver, muscle, and brain.

916-69

**CONCENTRATION OF DDT IN BRAIN AND OTHER TISSUES IN RELATION TO SYMPTOMATOLOGY.**

W J Hayes Jr W E Dale

*Toxicol Appl Pharmacol* 6(3):349

May 1964 391.8 T662

Brain, DDT, Rats, Tissues.

917-69

**2-PAM FOR PESTICIDE POISONING.**

W H Hayes Jr

*Agr Chem* 19(1):23

Jan 1964 381 AG8

Atropine, DDT, Malathion, Parathion, Pesticides, Poisoning.

918-69

**EVALUATION OF NEW INSECTICIDES FOR CONTROL OF ONION THRIPS.**

A F Howland J Wilcox

*J Econ Entomol* 59(4):969-971

Aug 1966 421 J822

Insecticides, Thrips tabaci.

919-69

**RESPONSE OF ROBINS TO DDT AND METHOXYCHLOR.**

L B Hunt R J Sacho

*J Wildlife Manage* 33(2):336-345 REF

Apr 1969 410 J827

Animal physiology, Birds, Chlorinated hydrocarbons, DDT, Insecticide residues, Insecticides, Methoxychlor, Mortality, Toxicology.

920-69

**ACTION OF DDT ON THE PERIPHERAL NERVOUS SYSTEM OF THE GRASS FROG RANA PIPIENS.**

P A Isaacson

*Cur Sci* 37(18):530-531

20 Sep 1968 475 SCI23

DDT, Frogs, Nervous system, Toxicology.

921-69

**CHEMICAL VS ENVIRONMENTAL CHANGES. THEIR EFFECTS ON WILDLIFE.**

W B Jackson

*Pest Contr* 35(7):30-31

Jul 1967 449.8 EX8

Chemical control (pests), Chlorinated hydrocarbons, DDT, Malathion, Toxicology, Wildlife.

922-69

**EFFECTS OF DDT, AS USED IN BLACK FLY LARVAL CONTROL, ON STREAM ARTHROPODS.**

H Jamnback H S Eabry

*J Econ Entomol* 55(5):636-639, TABS.

Oct 1962 421 J822

Arthropoda, DDT, Larvae, Simuliidae.

923-69

**FOOD CHAIN STUDIES.**

R F Johnson

260:9-11

Jun 1967 156.2 C49

Aquatic bacteria, DDT, Fish, Food, Malathion, Marine biology, Oysters, *Pseudomonas piscicida*.

924-69

**DDT TOXICITY IN RYE (SECALE SPP.).**

J M Jones J D Hayes

*Plant Pathol* 16(3):139-141

Sep 1967 464.8 P692

DDT, Immunity, Plant biochemistry, Plant breeding, Plant genetics, Plant injuries, Plant protection, Rye, Toxicology.

925-69

**AN IN VITRO AND IN VIVO STUDY OF THE EFFECT OF DDT ON THE PHAGOCYTIC ACTIVITY OF RAT WHITE BLOOD CELLS.**

L A Kaliser

*Toxicol Appl Pharmacol* 13(3):353-357

Nov 1968 391.8 T662

Blood cells, Chlorinated hydrocarbons, DDT, Pesticides, Phagocytes, Rats, *Staphylococcus*.

926-69

**FISH LOSSES AFTER FOREST SPRAYINGS WITH INSECTICIDES IN NEW BRUNSWICK, 1952-62, AS SHOWN BY CAGED SPECIMENS AND OTHER OBSERVATIONS.**

C J Kerswill H E Edwards

24(4):709-729, MAP REF

Apr 1967

DDT, Fish, Forests, Losses, Malathion, Petroleum, Phosphamidon, Spraying, Streams, TDE, Water pollution.

Abstract included.

927-69

**THE TOXICOLOGICAL EFFECT ON ANIMALS OF MIXTURES OF CHLOROPHOS AND DDT. (GE)**

P D Lestschenko W I Svatkov

*Nahrung* 12(4):369-375

1968 389.8 N142

DDT, Hygiene, Parathion, Pesticide residues, Rats, Synergists, Toxicity, Trichlorfon. English and Russian summary. translated from the Russian by U. Pesslies.

928-69

**ESTROGENIC ACTION OF DDT AND ITS ANALOGS. (ABSTRACT).**

W Levin R M Welch A H Conney

*Fed Amer Soc Exp Biol Fed Proc* 27(2):649

Mar 1968 442.9 F31P

Chlorinated hydrocarbons, Diethylstilbestrol, DDT, Enzymes, Estradiol, Estrogens, Fatty acids, Glucose, Lipids, Metabolism, Methoxychlor, Ovaries, Pesticides, Proteins, Rats, Ribonucleic acid, Surgery, Toxicology, Uterus.

929-69

**GROWTH AND RESISTANCE TO STRESS IN BROOK TROUT FED SUBLETHAL LEVELS OF DDT.**

K J Macek

*Can Fish Res Board J* 25(11):2443-2451 REF

Nov 1968 442.9 C16J

DDT, Environmental effects, Mating habits, Mortality, Starvation, Stress, Temperature, Toxicity, Trout.

Evidence suggests that the mortality of DDT exposed trout was due to the interaction of DDT residues with a combination of environmental stresses, namely starvation, decreasing water temperature, and possibly the physiological stress associated with the spawning season.

930-69

**THE QUANTITATIVE ANALYSES OF MICROGRAM QUANTITIES OF MIXTURES OF DDD AND P,P'DDT.**

W P McKinley G Savary C Webster

*Ass Offic Anal Chem J* 44(2):193-196, 1 TAB., 2 FIGS.

May 1961 381 AS7

DDT, Para para'-DDT, Quantitative analysis, TDE.

931-69

**THE METHOD OF CONDITIONED REFLEXES IN TOXICOLOGY AND ITS APPLICATION FOR DETERMINING THE TOXICITY OF SMALL QUANTITIES OF PESTICIDES.**

L I Medved' E I Spynu Iv. S Kagan

*Residue Rev* 6:42-74, 65 REFS., 5 FIGS.

1964 389.9 R314

Aldrin, Arsenic, Chlordane, Cholinergic system, Demeton, DDT, Heptachlor, Malathion, Manganese, Mercury, Nervous system, Parathion, Sodium cyanide.

932-69

## MODE OF ACTION OF INSECTICIDE SYNERGISTS.

R L Metcalf

*Annu Rev Entomol* 12:229-256 REF

1967 421 AN72

Bibliography, Carbamates, DDT, Insect biochemistry, Insecticide synergists, Organophosphorus compounds, Pyrethrum, Toxicology.

933-69

## EFFECT OF DDT AND TOXAPHENE ALONE AND IN COMBINATION ON SUCCINIC DEHYDROGENASE ACTIVITY IN HOMOGENATES OF THE BOLL WEEVIL.

R F Moore Jr H M Taft

*J Econ Entomol* 57(5):772-773

Oct 1964 421 J822

Anthonomus grandis, DDT, Succinic dehydrogenase, Toxaphene.

934-69

## MODE OF ACTION OF DDT AND ALLETHRIN ON NERVE: CELLULAR AND MOLECULAR MECHANISMS.

T Narahashi

*Residue Rev* 25:275-288 REF

1969 389.9 R314

Allethrin, Animal physiology, DDT, Electrophysiology, Nerves, Toxicology.

935-69

## INTERACTION OF DDT WITH THE COMPONENTS OF LOBSTER NERVE MEMBRANE CONDUCTANCE.

T Narahashi H G Haas

*J Gen Physiol* 51(2):177-198 REF

Feb 1968 447.8 J822

Bio-electric potential, Chlorinated hydrocarbons, DDT, Lobsters, Nerves, Physiology.

936-69

## EFFECTS OF VARIOUS WATER VOLUMES ON THE EFFECTIVENESS OF METHYL PARATHION-DDT IN CONTROLLING THE COTTON BOLL WEEVIL, ANTHONOMUS GRANDIS.

A D Oliver L W Sloane

*J Econ Entomol* 57(2):292

Apr 1964 421 J822

Anthonomus grandis, Cotton, DDT, Insect control, Insecticide application, Methyl parathion, Water.

937-69

## RESIDUES IN THE BODY FAT OF STEERS FED KELTHANE IN THEIR RATION. (ABSTRACT).

S A Peoples

*Fed Amer Soc Exp Biol Fed Proc* 27(2):597

Mar 1968 442.9 F31P

Adipose tissue (animals), Animal metabolism, Cattle, Chemurgy, Dicofof, DDT, Feed, Insecticide residues, Toxicology.

938-69

## BIOCHEMICAL CHANGES IN RAT LIVER IN RESPONSE TO TREATMENT WITH DRUGS AND OTHER AGENTS--II. EFFECTS OF HALOTHANE, DDT, OTHER CHLORINATED HYDROCARBONS, THIOACETAMIDE, DIMETHYLNITROSAMINE AND ETHIONINE.

D S Platt B L Cockrill

*Biochem Pharmacol* 18(2):445-457 REF

Feb 1969 396.8 B52

Biochemistry, Bromo-2-chloro-1,1,1-trifluoroethane, 2-, Chlorinated hydrocarbons, DDT, Drug therapy, Enzymes, Ethionine, Liver, Metabolism, Microsomes, Nitrosodimethylamine, N-, Rats, Thioacetamide, Toxicology, Toxins.

939-69

## LABORATORY STUDY ON THE CONTACT TOXICITY OF DDT TO ECTROPIS CREPUSCULARIA SCHIFF.

A P Randall

*Can Entomol* 94(4):424-428

Mar 1962 421 C16

DDT, Saddle-backed looper.

940-69

## LABORATORY EVALUATION OF DDT AND PHOSPHAMIDON ON THE WESTERN HEMLOCK LOOPER, LAMBDA FISCELLARIA LUGUBROSA (HULTS).

A P Randall C Jackson

*Can Entomol* 95(4):365-371

Apr 1963 421 C16

DDT, Insecticide application, Phosphamidon, Toxicology.

941-69

## A SIMPLE LABORATORY METHOD FOR TESTING THE SUSCEPTIBILITY OF LARVAE OF SIMULIUM NAEVEI COMPLEX TO INSECTICIDES.

J N Raybould

*World Health Organ Bull* 35(6):887-892, REF.

1966 449.9 W892B

Africa, DDT, Simulium naevei.

Abstract

942-69

## DDT RESIDUES IN PACIFIC SEA BIRDS: A PERSISTENT INSECTICIDE IN MARINE FOOD CHAINS.

R W Risebrough D B Menzel D J Martin H S Olcott

*Nature* 216(5115):589-591 REF

11 Nov 1967 472 N21

Aquatic birds, DDT, Ecology, Eggs, Insecticide residues, Marine biology.

943-69

## DYNAMICS OF ORGANOCHLORINE INSECTICIDES IN VERTEBRATES AND ECOSYSTEMS.

J Robinson

*Nature* 215(5096):33-35 REF

01 Jul 1967 472 N21

Chlorinated hydrocarbons, Dieldrin, DDT, Ecology, Insecticides, Vertebrates.

944-69

## POUR-ON TREATMENTS OF DDT OR TOXAPHENE FOR HORN FLY CONTROL.

W M Rogoff P H Kohler S D Hintz

*J Econ Entomol* 56(1):82-83

Feb 1963 421 J822

DDT, Haematobia irritans, Insecticide application, Toxaphene.

945-69

## DDT AND RELATED COMPOUNDS IN DOG FOOD AND CSMA MEDIA USED IN INSECT REARING.

G L Rolofson J L Bishop

*J Econ Entomol* 60 (4):1186-1187

15 Aug 1967 421 J822

Blattella germanica, Dicofof, DDT, Dog foods, Food contamination, Insect rearing, Tde.

946-69

## THE METABOLISM OF CONTACT INSECTICIDES IN STORED GRAINS.

D G Rowlands

*Residue Rev* 17:105-177, 374 REFS., 9 TABS., 6 FIGS.

1967 389.9 R314

Allethrin, Benzene hexachloride, Dimethoate, DDT, Grain, Insecticides, Lindane, Malathion, Methoxychlor, Piperonyl butoxide, Pyrethrum.

947-69

## DDT-INDUCED METABOLIC CHANGES IN RAT LIVER.

E Sanchez

*Can J Biochem* 45(12):1809-1817 REF

Dec 1967 470 C16E

DDT, Enzymes, Lcucine, Liver, Metabolism, Proteins, Rats, Ribonucleic acid.

Abstract

948-69

## PENETRATION AND METABOLISM OF DDT IN RESISTANT AND SUSCEPTIBLE HOUSE FLIES AND THE EFFECT ON LATENT TOXICITY.

F F Sanchez M Sherman

*J Econ Entomol* 59(2):272-277, BIBL. 276-277

Apr 1966 421 J822

DDT, Insecticide resistant insects, Metabolism, Musca domestica.

949-69

## DISTRIBUTION OF PESTICIDE RESIDUES IN HUMAN BODY TISSUES FROM MONTGOMERY COUNTY, OHIO. IN: ORGANIC PESTICIDES IN THE ENVIRONMENT; SYMPOSIUM...AMERICAN CHEMICAL SOCIETY ATLANTIC CITY, N.J., SEPT. 13-15, 1965. ROBERT J. GOULD, ED.

M L Schafer J E Campbell

*Advances Chem Ser* 60:89-98

1966 381 AD93

Adipose tissue (animals), Chlorinated hydrocarbons, Dieldrin, DDT, Humans, Insecticide residues, Tissues.

950-69

## EFFECT OF INSECTICIDES ON NEUROPHYSIOLOGICAL ACTIVITY IN INSECTS.

J Sternburg

*J Agr Food Chem* 8(4):257-261, BIBL. 261.

Jul 1960 381 J8223

Insect physiology, Insecticides, Nervous system.

951-69

## MICRONIZED INSECTICIDAL DUSTS FOR AIRCRAFT DISINFESTATION.

W N Sullivan S O Hill C H Gaddis R D Chisholm

V A Johnson

*J Econ Entomol* 56(6):869-872, BIBL. 871-872,

TABS.

Dec 1963 421 J822

Aircraft disinfection, Dusting, Insecticide application, Insecticides, Popillia japonica.

952-69

## CORRELATION BETWEEN LABORATORY AND FIELD DATA ON TESTING INSECTICIDES.

Y P Sun

*J Econ Entomol* 59(5):1131-1134

Oct 1966 421 J822

Field data, Insecticides, Laboratory data.

953-69

## NOTEWORTHY POISONS WHICH ARE PESTICIDES. (SW)

U Swaren

*Fauna Flora (Uppsala)* 63(5):206-209

Dec 1968 442.8 F27

Chlorinated hydrocarbons, DDT, Insecticides, Pesticides, Poisons.

954-69

## COMBINED ACTION OF DDT WITH CHLOROPHOS AND OF THIOPHOS WITH CHLOROPHOS. (RUS)

A A Tostanovskaya V S Lapchenko V I Svatkov

G P Egorova

*Vop Pitan* 27(3,MAY-JUN):69-73

1968 389.8 V89

Chlorinated hydrocarbons, DDT, Organophosphorus compounds, Parathion, Pesticides, Toxicology, Trichlorfon. English summary.

955-69

## AN EVALUATION OF CERTAIN COMPOUNDS AS FEEDING DETERRENTS AGAINST THE SMALLER EUROPEAN ELM BARK BEETLE, SCOLYTUS MULTISTRIATUS.

J G Touhey D F Bray

*J Econ Entomol* 54(2):293-296

Apr 1961 421 J822

Decanoic acid, Dieback (ulmus), Dichlorobenzaldehyde, 3,4-, Dichloro-m-toluamide, N,N-, Dimethyl phthalate, DDT, Scolytus, Scolytus multistriatus.

956-69

## EFFECT OF DDT ON PINK BOLLWORM POPULATIONS.

C H Tsao W L Lowry

*J Econ Entomol* 56(3):388-390

Jun 1963 421 J822

DDT, Pectinophora gossypiella, Population.



957-69

THE PENETRATION AND METABOLISM OF C14 - LABELED DDT IN RESISTANT AND SUSCEPTIBLE TOBACCO BUDWORM LARVAE, *HELIOTHIS VIRESCENS* (F.).

S B Vinson J R Brazzel

*J Econ Entomol* 59(3):600-604

Jun 1966 421 J822

DDA, DDT, Heliothis, Insecticide resistant insects, DDE, Larvae, Metabolism, Radioactive tracers.

958-69

ROLE OF INTESTINAL MICROFLORA IN THE DEGRADATION OF DDT BY RAINBOW TROUT (*SALMO GAIARDNERI*).

G Wedemeyer

*Life Sci* 7(3,PT 1):219-223 REF

01 Feb 1968 442.8 L62

DDT, Insecticide residues, Intestines, Metabolism, Metabolites, Microorganisms, Trout.

959-69

DETOXIFICATION OF DDT BY THE PERFUSED BOVINE LIVER.

F M Whiting S B Hagyard W H Brown J W Stull

*J Dairy Sci* 51(10):1612-1615 REF

Oct 1968 44.8 J822

Cattle, DDT, Liver, Metabolism, Toxicology. English abstract

960-69

RESPIRATORY EXPOSURE OF DAIRY ANIMALS TO PESTICIDES. IN: ORGANIC PESTICIDES IN THE ENVIRONMENT; SYMPOSIUM...AMERICAN CHEMICAL SOCIETY, ATLANTIC CITY, N.J., SEPT. 13-15, 1965. ROBERT J. GOULD, ED.

J M Witt F M Whiting W H Brown

*Advances Chem Ser* 60:99-109, REF.

1966 381 AD93

Animal respiration, Cattle, Chlorinated hydrocarbons, DDT, Insecticide residues, Milk fat.

961-69

TOXICITY OF DDT AND RELATED COMPOUNDS TO CERTAIN LEPIDOPTERAN COTTON INSECTS.

D A Wolfenbarger W L Lowry

*J Econ Entomol* 62(2):432-435 REF

15 Apr 1969 421 J822

Chlorinated hydrocarbons, Cotton, DDT, Insect pests, Lepidoptera, Spraying.

962-69

PARAFFINIC AND NAPHTHENIC OIL FRACTIONS IN COMBINATION WITH DDT AND A *HELIOTHIS* VIRUS FOR CORN EARWORM CONTROL.

D A Wolfenbarger

*J Econ Entomol* 57(5):732-735, BIBL. 735, TABS.

Oct 1964 421 J822

DDT, Heliothis zea, Paraffin oils, Polyhedroses.

963-69

EVALUATION OF SHELL SD-8447 FOR CONTROL OF TWO SWEET CORN INSECTS.

J R Young M C Bowman

*J Econ Entomol* 59(1):170-173

Feb 1966 421 J822

Insects, Shell SD-8447, Sweet corn.

## PLANT PHYSIOLOGY & BIOCHEMISTRY

964-69

SOME EFFECTS OF TOXAPHENE-DDT AND CALCIUM ARSENATE ON GROWTH AND DEVELOPMENT OF COTTON.

L C Brown C Lincoln R E Frans B A Waddle

*J Econ Entomol* 54(2):309-311

Apr 1961 421 J822

Calcium arsenate, Cotton, DDT, Plant dwarfing, Toxaphene.

965-69

EFFECTS OF PESTICIDAL TREATMENTS ON THE CHLOROPHYLL CONTENT OF PLANT PARTS.

J Bruinsma

*Residue Rev* 10:1-39, 223 REFS., 1 TAB., 2 FIGS.

1965 389.9 R314

Amitrole, Chlorophyll a, Chlorophyll b, Chlorosis (plants), DDT, Gibberellic acid, Lindane, Pesticide residues, Simazine, Simazine, Soil sterilization, Streptomycin.

966-69

SOME EFFECTS OF DDT, DIELDRIN, DIMETHOATE AND FENTHION ON GROWTH OF CUCUMBERS.

B R Champ

*Queensland J Agr Anim Sci* 23(2):333-335

Jun 1966 23 Q37

Cucumbers, Dieldrin, Dimethoate, DDT, Fenthion, Plant physiology.

967-69

EFFECT OF DDT, DIELDRIN, HEPTACHLOR ON THE GROWTH OF SELECTED BACTERIA.

J A Collins B E Langlois

*Appl Microbiol* 16(5):799-800

May 1968 448.3 AP5

Biochemistry, Dieldrin, DDT, *Escherichia coli*, Heptachlor, Pesticides, Plant physiology, *Pseudomonas fluorescens*, Soil bacteria, *Staphylococcus aureus*.

968-69

EFFECT OF DDT, DIELDRIN AND HEPTACHLOR ON THE GROWTH OF SELECTED BACTERIA. (ABSTRACT).

J A Collins B E Langlois

*J Dairy Sci* 51(4):619

Apr 1968 44.8 J822

Bacteria, Dieldrin, DDT, *Escherichia coli*, Heptachlor, Plant physiology, *Pseudomonas fluorescens*, Skim milk. Abstract of paper presented at the American Dairy Science Association Southern Division annual meeting, Louisville, Feb. 5-7, 1968.

969-69

THE SELECTION OF A SOLVENT FOR USE WITH LOW VOLUME AERIAL SPRAYING OF COTTON PLANTS.

H H Coutts R H Parish

*Arusha Trop Pesticides Res Inst Misc Rep* 611.4 P

Mar 1967 423.92 G7922

Cotton, DDT, Low volume application, Mineral oil, Particle size determination, Solvents, Spraying. Toxic effects (scorching) cotton

970-69

NEW DEVELOPMENTS IN HYBRID BARLEY RESEARCH.

A E Foster

*Northwest Crop Produc Conf Rep* 1967

MEETING:34-36

1967 464.9 N813

Barley, DDT, Plant breeding, Plant genetics, Plant injuries.

971-69

EFFECT OF DICHLORO DIPHENYL TRICHLORO-ETHANE (DDT) ON LEGHEMOGLOBIN CONTENT OF ROOT NODULES OF *PHASEOLUS AUREUS* (GREEN GRAM).

A C Gaur P P Pareek

*Experientia* 25(7):777

15 Jul 1969 475 EX7

DDT, Hemoglobin (plants), Insecticides, Mung beans, Plant biochemistry, Plant physiology, Roots, Toxicology.

972-69

CONVERSION OF DDT TO DDD BY PATHOGENIC AND SAPROPHYTIC BACTERIA ASSOCIATED WITH PLANTS.

B T Johnson R N Goodman R N Goldberg

*157(3788):560-561 REF*

04 Aug 1967 470 SC12

Bacteria, Chromatography, Degradation, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Metabolites, Oxygen, Saprophytes, Tde.

973-69

EFFECTS OF SOME INSECTICIDES ON NITROGEN FRACTIONS OF BARTLETT PEAR LEAF TISSUE.

A L Kamal C G Woodbridge

*J Sci Food Agr* 12(6):1-280-7

Jun 1961 382 SO12

Demeton, DDT, Malathion, Parathion, Pears, Plant physiology.

974-69

BIOCHEMICAL INVESTIGATIONS INTO THE EFFECT OF DDT ON BARLEY.

P D Lawler L J Rogers

*Biochem J* 103(2):44P

May 1967 382 B52

Barley, DDT, Plant biochemistry.

975-69

EFFECT OF DDT ON PHOTOSYNTHESIS IN CERTAIN VARIETIES OF BARLEY.

P D Lawler L J Rogers

*Nature* 215(5109):1515-1516

30 Sep 1967 472 N21

Barley, Biochemistry, Chloroplasts, DDT, Hill reaction, Immunity, Photosynthesis, Plant genetics, Plant hardiness.

976-69

PESTICIDE EFFECTS IN SOILS ON NITRIFICATION AND PLANT GROWTH.

W M Shaw B Robinson

*J Sci Food Agr* 12(5):1-222-2

May 1962 382 SO12

Aldrin, Chlordane, Dieldrin, DDT, Heptachlor, Nitrification, Plant physiology, Soils, 2,4-D.

977-69

SOME BIOCHEMICAL INVESTIGATIONS INTO SUSCEPTIBILITY OF BARLEY VARIETIES TO DDT.

D G Upshall T W Goodwin

*J Sci Food Agr* 15(12):846-855, 22 REFS.

Dec 1964 382 SO12

Barley, Crop varieties, DDT, Plant biochemistry, Plant injuries.

978-69

THE EFFECTS OF TREATMENTS AGAINST OSTRINIA (PYRAUSTA) NUBILALIS HB. ON THE PRODUCTION OF HYBRID CORN. (IT)

S Zangheri L Masutti

*Giornate Fitopatol* 345-352

26 Mar 1967 SB599.G5

Chemical control (insects), Chlorinated hydrocarbons, Corn, Crop varieties, Crop yields, DDT, *Ostrinia nubilalis*.

## CHEMISTRY

979-69

ANTIRESISTANT-DDT AVAILABLE FROM PENICK AND GENERAL CHEMICAL.

*Agr Chem* 17(6):77

Jun 1962 381 AG8

DDT, Insecticide resistant insects.

980-69

AGRICULTURAL CHEMICAL COMPOSITIONS.

*J Sci Food Agr* 12(5):1-228-3

May 1961 382 SO12

Agricultural chemistry, DDT. Fisons Pest Control Ltd (Inventor) C. H. Barker

981-69

RECOMMENDED ANALYTICAL METHODS FOR PESTICIDES. 17. 2,4-D, 2,4-D SALTS AND 2,4-D FORMULATIONS. 18. DDT DUSTS AND WATERDISPERSIBLE POWDERS.

*J Sci Food Agr* 15(10):11-186-5

Oct 1964 382 SO12

Chemistry, Chromatography, DDT, Methodology, 2,4-D, 2,4,5-T. Collaborative pesticides analytical committee

982-69

**THERMAL DECOMPOSITION OF DDT BY SOME SOIL CONSTITUENTS.**

*J Sci Food Agr* 15(7):11-20-3

Jul 1964 382 SO12

Allophane, Aluminum oxide, Decomposition, DDT, Iron oxides, Soil mineralogy.

983-69

**DDT - TYPE COMPOUNDS: SEPARATION AND IDENTIFICATION BY A SYSTEM COMBINING THIN LAYER CHROMATOGRAPHY, GAS CHROMATOGRAPHY, AND INFRARED SPECTROSCOPY.**

M B Abou-Donia D B Menzel

*Ass Offic Anal Chem J* 51(6):1247-1260 REF

Nov 1968 381 AS7

Chlorinated hydrocarbons, Chromatography, DDT, Insecticides, Pesticide residues, Spectroscopy.

984-69

**CODISTILLATION OF DDT WITH WATER.**

F Acree Jr M Beroza M C Bowman

*J Agr Food Chem* 11(4):278-280

Jul 1963 381 J8223

Distillation, DDT.

985-69

**THE CHROMATOGRAPHIC SEPARATION OF PESTICIDES ON SILICIC ACID.**

J P Barrette R Payfer

*Ass Offic Anal Chem J* 44(3):606-608, 1 TAB.

Aug 1961 381 AS7

Chromatography, DDT, Lindane, Silicic acid.

986-69

**SPECIFICITY OF DIARYLHALOETHANE-DEHYDROHALOGENASE OF SUSCEPTIBLE AND DDT-RESISTANT HOUSE FLIES.**

R S Berger R G Young

*J Econ Entomol* 55(4):533-536, TABS.

Aug 1962 421 J822

Chemistry, Diarylhaloethane-dehydrohalogenase, DDT, *Musca domestica*.

987-69

**CHLORINE ANALYSIS BY THE SCHONIGER OXYGEN FLASK.**

W R Bontoyan

*Ass Offic Anal Chem J* 47(2):255-256, 2 REFS.

Apr 1964 381 AS7

Chlorine, Pesticides.

988-69

**INSECTICIDE SOLUBILITY: SOLUBILITY OF CARBON-14 DDT IN WATER.**

M C Bowman F Acree Jr

*J Agr Food Chem* 8(5):406-408

Sep 1960 381 J8223

C-14, DDT, Solubility, Water.

989-69

**REPORT ON ANALYTICAL METHODS FOR PESTICIDE FORMULATIONS.**

R L Caswell

*Ass Offic Anal Chem J* 45(3):511-512

Aug 1962 381 AS7

Chromatography, Colorimetry, DDT, Heptachlor, Malathion, Pesticides, Phorate.

990-69

**QUANTITATIVE DETERMINATION OF PESTICIDE RESIDUES BY ELECTRON ABSORPTION CHROMATOGRAPHY: CHARACTERISTICS OF THE DETECTOR.**

S J Clark

*Residue Rev* 5:32-44, 16 REFS., 2 TABS., 6 FIGS.

1964 389.9 R314

Aldrin, Anthracene, Chromatography, Dieldrin, DDT, Endrin, Heptachlor, Lindane, Methoxychlor, Pesticide residues.

991-69

**THE ESTIMATION OF MIXTURES OF DDT AND BHC ISOMERS USING INFRARED DIFFERENTIAL NULL-ANALYSIS.**

B Cleverley

*Anal Chem* 33(11):1621-1623

Oct 1961 381 J825A

Benzene hexachloride, Benzene hexachloride, Differential null-analysis, DDT, Infrared spectra, Isomerism.

992-69

**MICROCOULOMETRIC GAS CHROMATOGRAPHY OF PESTICIDES.**

D M Coulson L A Cavanagh J E de Vries B

Walther

*J Sci Food Agr* 12(2):1-75-7

Feb 1961 382 SO12

Aldrin, Chromatography, Dieldrin, DDT, Endrin, Lindane.

993-69

**THE SYNTHESIS OF TERTIARY CARBON DEUTERATED DDT AND DDT ANALOGS.**

A C Dachauer B Cocheo M G Solomon D J

Hennessy

*J Agr Food Chem* 11(1):47-50

Jan 1963 381 J8223

Deuterium, DDT.

994-69

**GAS CHROMATOGRAPHY FOR THE ANALYSIS OF PESTICIDES USING AEROGRAPH ELECTRON CAPTURE DETECTOR.**

K P Dimick Hal Hartmann

*Residue Rev* 4:150-172, 7 REFS., 1 TAB., 14 FIGS.

1963 389.9 R314

Chromatography, DDT, Endosulfan, Pesticide residues.

995-69

**CHROMATOGRAPHIC SEPARATION OF MALATHION PRIOR TO INFRARED SPECTROPHOTOMETRIC ESTIMATION.**

R C Double

*Ass Offic Anal Chem J* 47(4):693-695, 2 REFS., 1 TAB.

Aug 1964 381 AS7

Chromatography, DDT, Malathion, Spectrophotometry.

996-69

**METABOLISM OF DDT BY RUMEN MICROORGANISMS IN VITRO. (ABSTRACT).**

G F Fries

*J Dairy Sci* 51(6):981

Jun 1968 44.8 J822

Acetonitrile, Biochemistry, Chromatography, DDT, Fermentation, Metabolism, Microorganisms, Radioactive substances, Rumen.

997-69

**RECENT DEVELOPMENTS IN THE DETECTION AND DETERMINATION OF PESTICIDES AND THEIR RESIDUES BY OSCILLOGRAPHIC POLAROGRAPHY.**

R J Gajan

*Residue Rev* 6:75-86, 42 REFS.

1964 389.9 R314

Azinphosmethyl, DDT, Ferbam, Methyl parathion, Parathion, Pesticide residues, Polarography, Zineb, Ziram.

998-69

**APPLICATIONS OF POLAROGRAPHY FOR THE DETECTION AND DETERMINATION OF PESTICIDES AND THEIR RESIDUES.**

R J Gajan

*Residue Rev* 5:80-90, 28 REFS., 7 FIGS.

1964 389.9 R314

Apples, Azinphosmethyl, Cucumbers, DDT, Malathion, Methoxychlor, Parathion, Pears, Pesticide residues, Polarography, Tomatoes.

999-69

**GAS CHROMATOGRAPHY USING AN ELECTRON ABSORPTION DETECTOR.**

L K Gaston

*Residue Rev* 5:21-31, 16 REFS. 2 TABS. 7 FIGS.

1964 389.9 R314

Aldrin, Carbophenothion, Chromatography, Dieldrin, DDT, Endrin, Lindane, Malathion, Pesticide residues.

1000-69

**PESTICIDES' UNSUNG ASSISTANTS.**

J W Hammond

*Agr Chem* 22(7):22-24

Jul 1967 381 AG8

DDT, Formulations, Insecticides, Malathion, Mineral oil, Solvents, Toxaphene.

1001-69

**REPORT ON ANALYTICAL METHODS FOR PESTICIDE FORMULATIONS.**

T H Harris

*Ass Offic Anal Chem J* 44(3):576

Aug 1961 381 AS7

Aldrin, Ammonium chloride, Chlorine, Dieldrin, DDT, Endrin, Infrared rays, Malathion, Parathion, Sabadilla, Sodium biphenyl, Sodium hypochlorite, Warfarin.

1002-69

**SOME CHEMICAL CHARACTERISTICS OF A DDT-INDUCED NEUROACTIVE SUBSTANCE FROM COCKROACHES AND CRAYFISH.**

W B Hawkins J Sternburg

*J Econ Entomol* 57(2):241-247, PL.

Apr 1964 421 J822

Blattidae, Crayfish, DDT.

1003-69

**THE OPTIMUM SIZE FOR INSECTICIDE SPRAY DROPLETS.**

C M Himel

*J Econ Entomol* 62(4):919-925 REF

15 Aug 1969 421 J822

Aedes aegypti, Air pollution, Anthonomus grandis, Chemical control (insects), Chlorinated hydrocarbons, DDT, Ecology, Fluorescent substances, Heliothis zea, Insecticides, Methyl parathion, Organophosphorus compounds, Particle size determination, Soil contamination, Spraying, Velocity.

1004-69

**SELECTIVE DETECTION AND IDENTIFICATION OF PESTICIDE RESIDUES.**

T Johns C H Braithwaite Jr

*Residue Rev* 5:45-56, 8 REFS., 2 TABS., 7 FIGS.

1964 389.9 R314

Aldrin, Chromatography, DDT, Heptachlor, Lindane, Parathion, Pesticide residues.

1005-69

**THE FEASIBILITY OF MASS SPECTROMETRIC METHODS IN RESIDUE ANALYSIS. (GE)**

J Jorg M Spiteller-Friedmann G Spiteller

*Pflanzenschutzberichte* 36(8/10):157-165 REF

Dec 1967 464.9 P48

DDT, Heterocyclic compounds, Pesticide residues, Propazine, Spectrometry. English summary.

1006-69

**STUDIES ON THE EFFECT OF SULFURIC-FUMING NITRIC ACID TREATMENT ON THE ANALYTICAL CHARACTERISTICS OF TOXAPHENE.**

Y Kawano A Bevenue H Beckman F Erro

*Ass Offic Anal Chem J* 52(1):167-172

Jan 1969 381 AS7

Acids, Chromatography, DDT, Insecticide residues, Nitric acid, Pesticide analysis, Sulfuric acid, Toxaphene.

1007-69

**EFFECTS OF SOME SPRAY ADJUVANTS ON DDT EMULSIFIABLE CONCENTRATE.**

H Kido E M Stafford

*J Econ Entomol* 59(2):454-460, TABS.

Apr 1966 421 J822

DDT, Emulsifying agents.

1008-69

**DDT-DEHYDROCHLORINASE IN Aedes Aegypti.**



## CHEMISTRY

1009-69

T Kimura A W A Brown

*J Econ Entomol* 57(5):710-716, BIBL. 715-716, TABS.

Oct 1964 421 J822

Dehydrochlorinase, DDT.

1009-69

SEPARATION AND MEASUREMENT OF PERTHANE, DDD (TDE) AND DDT IN LEAFY VEGETABLES BY ELECTRON-CAPTURE GAS CHROMATOGRAPHY.

A K Klein J O Watts

*J Sci Food Agr* 15(11):260-262

Nov 1964 382 S012

Chromatography, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, DDT, Electron capture, Insecticide residues, TDE, Vegetables.

1010-69

SIMULTANEOUS QUANTITATIVE DETERMINATION OF LINDANE AND DDT GAS CHROMATOGRAPHY.

J R Koons H J Wesselman

*J Agr Food Chem* 12(6):550

Nov 1964 381 J8223

Chromatography, DDT, Insecticides, Lindane.

1011-69

THE DOSAGE OF THE INSECTICIDES: DDT, HCH AND METHOXYCHLOR FOR CHROMATOGRAPHY ON A THIN LAYER AND FOR POLAROGRAPHY. (POL)

A Kotarski K Mosinska

*Chem Anal* 12(2):329-338 REF

1967 385 C4233

Benzene hexachloride, Chemical analysis, Chromatography, DDT, Dosage, Insecticides, Methoxychlor, Polarography, Tables (data). French summary.

1012-69

COLLABORATIVE, STUDY OF THE SWEEP CO-DISTILLATION CLEANUP FOR CHLORINATED PESTICIDE RESIDUES IN EDIBLE FATS AND OILS.

B Malone J A Burke

*Ass Offic Anal Chem J* 52(4):790-797

Jul 1969 381 AS7

Animal extracts, Chemical analysis, Chlorinated hydrocarbons, Distillation, DDT, Fats, Insecticide residues, Methodology.

1013-69

FUNDAMENTAL RESEARCH IS KEY TO SAFE, EFFECTIVE PESTICIDES.

S H McAllister

*Agr Chem* 17(5):32-33, 100

May 1962 381 AG8

Agricultural research, DDT, Herbicides, Pesticides.

1014-69

METHYLENEDIOXYPHENYL DERIVATIVES AS SYNERGISTS FOR CARBAMATE INSECTICIDES ON SUSCEPTIBLE, DDT- AND PARATHION-RESISTANT HOUSE-FLIES.

R Miskus V Sutchter

*J Sci Food Agr* 12(1):1-55-1

Jan 1961 382 S012

Carbaryl, DDT, Insecticide resistant insects, Musca domestica, Parathion, Sesamex.

1015-69

ASCENDING PAPER CHROMATOGRAPHY: A WAY TO DO IT.

L C Mitchell

*Ass Offic Anal Chem J* 40(4):999-1029

15 Nov 1957 381 AS7

Chromatography, DDT, Food analysis, Food contamination, Pesticide analysis.

1016-69

PHOTOCHEMICAL DECOMPOSITION OF DDT BY A FREE-RADICAL MECHANISM.

A R Mosier W D Guenzi L L Miller

*Science* 164(3383):1083-1085

30 May 1969 470 SC12

Chlorinated hydrocarbons, Chromatography, Degradation, DDT, Insecticides, Radiation.

## BIBLIOGRAPHY

1017-69

DEGRADATION OF GAMMA-BHC IN SIMULATED LAKE IMPOUNDMENTS AS AFFECTED BY AERATION.

L W Newland G Chesters G B Lee

*Water Pollut Contr Fed J* 41(5,PT 2):R174-R188

REF

May 1969 293.8 SE8

By-products, Chlorinated hydrocarbons, Chromatography, Degradation, DDT, Heptachlor, Insecticide residues, Lakes, Lindane, Methodology, Reservoirs, Sediments, Water pollution.

1018-69

AROMATIC SOLVENTS FOR PESTICIDES.

L W Norkus

*Agr Chem* 15(4):34-36, 113-114, 4 TABS.

Apr 1960 381 AG8

DDT, Naphtha, Panasol AN-2K, Solvents, Xylene.

1019-69

DDD AS A DECOMPOSITION PRODUCT OF DDT.

D E Ott F A Gunther

*Residue Rev* 10:70-84, 39 REFS., 7 FIGS.

1965 389.9 R314

Chromatography, DDT, Milk analysis.

1020-69

METABOLIC PRODUCTS OF P,P'-DDT IN THE RAT.

J E Peterson Wm H Robison

*Toxicol Appl Pharmacol* 6(3):321-327

May 1964 391.8 T662

DDT, Metabolism, Rats, Tde.

1021-69

SCREENING METHODS FOR ORGANOCHLORINE AND ORGANOPHOSPHATE INSECTICIDES IN FOODS AND FEEDS.

B L Samuel H K Hodges

*Residue Rev* 17:35-72, 122 REFS., 4 TABS.

1967 389.9 R314

Aldrin, Chromatography, Dieldrin, DDT, Endosulfan, Fluorescence, Heptachlor, Lindane, Malathion, Parathion, Pesticide residues, Polarography, Spectrophotometry, Vaporization.

1022-69

ESTIMATION OF DDT IN FACTORY WASTE.

S K Shrivastava

*Cur Sci* 36(7):177-178

05 Apr 1967 475 SC123

Chemical analysis, DDT, Industrial wastes, Insecticide residues, Methodology.

1023-69

GRANULAR INSECTICIDES' THEIR HISTORY AND LITERATURE.

P R Sperra

*Agr Chem* 17(4):21-24, 102

Apr 1962 381 AG8

Agricultural history, DDT, Literature, Pesticides.

1024-69

PETROLEUM FRACTIONS AS DDT SOLVENTS.

A M Thomas Jr

*J Agr Food Chem* 12(5):442-447, TABS.

Sep 1964 381 J8223

DDT, Petroleum.

1025-69

PESTICIDES.

*Anal Chem* 35(5):105R-110R, 90 REFS.

Apr 1963 381 J825A

Aldrin, Dieldrin, DDT, Endrin, Heptachlor, Lindane, Residues, Tde.

1026-69

MICROSCOPIC IDENTIFICATION OF SOME CHLORINATED HYDROCARBON INSECTICIDES ON DIFFERENT SUBSTRATA.

L Ungureanu E M Ungureanu

*Parassitologia* 9(2):101-106

Oct 1967 436.8 P212

Aldrin, Benzene hexachloride, Chlorinated hydrocarbons, Diagnosis, Dieldrin, DDT, Endrin, Insecticide residues, Lindane, Microscopy.

1027-69

DISTRIBUTION RATIO OF SOME CHLORINATED HYDROCARBON INSECTICIDES BETWEEN HEXANE AND WATER.

S Voerman

*Bull Environ Contamination Toxicol* 4(2,MAR-APR):64-67

Apr 1969 RA1270.P35A1

Aldrin, Chemical analysis, Chlorinated hydrocarbons, Dieldrin, DDT, Heptachlor, Heptachlor epoxide, Hexane, Insecticides, Lindane, Solubility, Water.

1028-69

THE EFFECT OF THE ASSOCIATION OF ORGANIC MATERIAL WITH CLAYS ON PARATHION AND DDT ADSORPTION.

W G Wang

*Diss Abstr Sect B* 29(3):904B-905B

Sep 1968 Z5055.U49D53

Adsorption, Clay soils, DDT, Parathion, Surface chemistry, Water.

1029-69

EVALUATION OF EXTRACTION AND CLEANUP METHODS FOR ANALYSIS OF DDT AND DDE IN GREEN ALFALFA.

G W Ware M K Dee

*Bull Environ Contamination Toxicol* 3(6,NOV-DEC):375-382

Dec 1968 RA1270.P35A1

Alfalfa, Chemical analysis, Chlorinated hydrocarbons, Chromatography, Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Electron capture, Extraction techniques, Insecticide residues, Insecticides.

1030-69

ON THE TOXICOLOGY OF PYRETHRUM TO WARM BLOODED ANIMALS. (GE)

H J Wasserburger

*Angew Parasitol* 9(3):177-178

Aug 1968 436.8 AN4

Birds, Diazinon, DDT, Insecticide synergists, Insecticides, Mammals, Piperonyl butoxide, Pyrethrum, Toxicology. English, russian and german abstracts

1031-69

LOSS OF PARATHION AND DDT TO SOIL FROM AQUEOUS DISPERSIONS AND VERMICULITE GRANULES.

D E Weidhaus M C Bowman C H Schmidt

*J Econ Entomol* 54(1):175-177

Feb 1961 421 J822

DDT, Parathion, Vermiculite, Water.

1032-69

3,6,9,10-TETRAHALOGENPHENANTHRENE. A NEW CYCLIARYLATION REACTION OF DDT DERIVATIVES. (GE)

C D Weis

*Helv Chim Acta* 51(7):1572-1581 REF

31 Oct 1968 385 H36

Chemistry, Cyclic compounds, DDT, Halogen compounds, Pesticides, Phenanthrenes. English summary.

## ENGINEERING

1033-69

RAPID COLORIMETRIC DETERMINATION OF DOT IN MILK AND BUTTER.

R C Blinn F A Gunther

*Ass Offic Anal Chem J* 46(2):191-194

Apr 1963 381 AS7

Agricultural chemistry, Butter, Colorimetry, DDT, Milk.

1034-69

PROGRAMMED TEMPERATURE GAS CHROMATOGRAPHY (PTGC) AND MICROCOU-

**LOMETRIC DETECTION OF CHLORINATED INSECTICIDES.**

J Burke  
*Ass Offic Anal Chem J* 46(2):198-204  
 Apr 1963 381 AS7

Agricultural chemistry, Aldrin, Carbophenothion, DDE, DDT, Heptachlor, Heptachlor epoxide, Lindane, Methoxychlor.

**1035-69****DETERMINATION OF MICRO QUANTITIES OF SOME CHLORINATED ORGANIC PESTICIDE RESIDUES IN EDIBLE FATS AND OILS.**

M Eidelman  
*Ass Offic Anal Chem J* 46(2):182-186  
 Apr 1963 381 AS7

Agricultural chemistry, Aldrin, Chromatography, Dieldrin, DDT, Endrin, Fats, Heptachlor, Lindane, Oils, Pesticide residues.

**1036-69****WATER-BASE INSECTICIDES.**

A S Glessner  
*J Sci Food Agr* 16(7):12  
 Jul 1965 382 SO12

Allethrin, Containers, DDT, Methoxychlor, Piperonyl butoxide, Pyrethrum, Thanite.

**1037-69****AN EFFECT OF ELECTROSTATIC DUSTING ON DDT DUST DEPOSITION.**

E A Harrell M C Bowman W W Hare  
*J Econ Entomol* 58(5):1016-1017  
 Oct 1965 421 J822  
 DDT, Electrostatic dusting.

**1038-69****COMPARISON OF LABORATORY TECHNIQUES FOR THE DETERMINATION OF PESTICIDE RESIDUES IN MILK.**

J L Henderson  
*Ass Offic Anal Chem J* 46(2):209-215  
 Apr 1963 381 AS7  
 Agricultural chemistry, DDT, Lindane, Milk, Pesticide residues.

**1039-69****CHLORINATED INSECTICIDES AND MITICIDES ELECTRON CAPTURE GAS CHROMATOGRAPHY FOR DETERMINATION OF DDT IN BUTTER AND SOME VEGETABLE OILS.**

A K Klein J O Watts J N Damico  
*Ass Offic Anal Chem J* 46(2):165-171  
 Apr 1963 381 AS7  
 Agricultural chemistry, Butter, Chromatography, DDT, Electron capture, Oils.

**1040-69****THIN-LAYER CHROMATOGRAPHY FOR CHLORINATED PESTICIDE RESIDUE ANALYSIS.**

Jr., M F Kovacs  
*Ass Offic Anal Chem J* 46(5):884-893  
 Oct 1963 381 AS7

Benzene hexachloride, Chromatography, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, DDE, DDE, DDT, Heptachlor, Lindane, Methoxychlor.

**1041-69****SENSITIVITY TESTS FOR 22 DIFFERENT CHLORINATED ORGANIC PESTICIDES BY PAPER CHROMATOGRAPHY.**

L C Mitchell  
*Ass Offic Anal Chem J* 46(6):988-992  
 Dec 1963 381 AS7

Aldrin, Assay, Chlorbenside, Chlordane, Chlorobenzilate, Chromatography, Dicofol, Dieldrin, DDT, Endosulfan, Endrin, Heptachlor, Heptachlor epoxide, Lindane, Methoxychlor, Perthane, Strobane, Tde, Toxaphene.

**1042-69****INFRARED SPECTRA OF PESTICIDES.**

Jr, W W Morris F O Hacnni  
*Ass Offic Anal Chem J* 46(6):964-986  
 Dec 1963 381 AS7

Aldrin, Chlorbenside, Dichloro-2,2-bis(p-ethylphenyl)ethane, 1,1-, Dieldrin, DDE, DDE, DDT, Endosulfan, Endrin, Heptachlor epoxide, Infrared spectra, Methoxychlor.

**1043-69****FORMULATION ANALYSIS: THE EFFECT OF DIFFERENT STORAGE TREATMENTS ON THE SUSCEPTIBILITY, AGGLOMERATION AND DETERIORATION OF SURFACTANTS OF DDT WATER-DISPERSIBLE POWDERS.**

M T Shafik M A Elamayem  
*World Health Organ Bull* 37(4):687-695  
 1967 449.9 W892B  
 Chemistry, Deterioration, DDT, Pesticides, Spraying, Storage.

**1044-69****RECOVERY OF SULPHENONE FROM AGRICULTURALLY TREATED CROPS.**

H Shuman  
*Ass Offic Anal Chem J* 46(2):195-197  
 Apr 1963 381 AS7  
 Agricultural chemistry, Apples, DDT, Peaches, Pears.

**1045-69****GAS CHROMATOGRAPHIC COLUMNS FOR OPTIMUM RECOVERY OF CHLORINATED PESTICIDES.**

H Shuman J R Collie  
*Ass Offic Anal Chem J* 46(6):992-995  
 Dec 1963 381 AS7  
 Chromatography, DDT.

**1046-69****THEORETICAL AND PRACTICAL ASPECTS OF ROOM SPRAYING.**

M Sy  
*Prakt Schadlingsbekämpfer* 20(5):57-61  
 May 1968 421 P882  
 DDT, Equipment, Fog, Insecticide application, Insects, Pest control, Spraying.

**1047-69****A THERMAL PREFERENCE METHOD OF BIOASSAY OF THE TOXICITY OF INSECTICIDAL FILMS TO HOUSE FLIES.**

J Ward F M Gillham C Potter  
*Bull Entomol Res* 51(2):379-387  
 Jul 1960 421 B87  
 Biological assay, Insecticidal films, Musca domestica, Thermal analysis, Toxicology.

**INDUSTRY****1048-69****PESTICIDES ARE BLAMED FOR 911 CALIFORNIA INJURIES.**

*Agr Chem* 18(7):27-28, 80  
 Jul 1963 381 AG8  
 Accidents, Carbaryl, DDT, Mevinphos, Parathion, Pest control operators, Pesticides.

**1049-69****PESTICIDE SITUATION FOR 1959-60.**

*Agr Chem* 15(5):41-43, 101, 5 TABS.  
 May 1960 381 AG8  
 Benzene hexachloride, DDT, Maleic hydrazide, Methyl parathion, Parathion.

**1050-69****A.I.C.H.E. HOLDS PESTICIDES.**

*Agr Chem* 15(3):8, 38  
 Mar 1960 381 AG8  
 DDT, Pesticide residues, Pesticides, Toxicology.

**1051-69****DDT AND HEPTACHLOR AS BLACK-FLY LARVICIDES IN CLEAR AND TURBID WATER.**

F J H Fredcen  
*Can Entomol* 94(8):875-880  
 Aug 1962 421 C16  
 DDT, Heptachlor, Oils, Simuliidae, Water.

**ECONOMICS****1052-69****1962 PESTICIDE EXPORTS SHOW GAIN DURING FIRST HALF.**

*Agr Chem* 18(4):34  
 Apr 1963 381 AG8  
 DDT, Foreign trade, Pesticides.

**1053-69****PRODUCTION OF DDT CONTINUES TO INCREASE.**

*Agr Chem* 16(9):19-20, 142-143  
 Sep 1961 381 AG8  
 DDT, Parathion.

**1054-69****CARRYOVER STOCKS OF PESTICIDES INCREASED OVER 1960 LEVEL.**

*Agr Chem* 17(3):94  
 Mar 1962 381 AG8  
 Aldrin, Demand, DDT, Overproduction, Pesticides, 2,4-D.

**1055-69****A GOOD YEAR FOR PESTICIDE SALES.**

Anonymous  
*Farm Chem* 131(9):56-58  
 Sep 1968 57.8 AM3  
 Agricultural economics, Cotton, DDT, Industrial management, Pesticides, Sales.

**1056-69****HEAVY SUPPLY AND LOW DEMAND.**

A F Fuchs  
*Agr Chem* 18(10):28-29  
 Oct 1963 381 AG8  
 Anthonomus grandis, DDT, Herbicides, Parathion, Supply and demand, Weed control.

**1057-69****PESTICIDE EXPORTS FROM U.S. INCREASE BY 22 PER CENT IN 1962.**

C A Graham  
*Agr Chem* 18(8):29,80-81, 1 TAB.  
 Aug 1963 381 AG8  
 Copper sulfate, DDT, Foreign trade, Pesticides.

**1058-69****IS THERE ROOM FOR U.S. FIRMS IN THE EUROPEAN PESTICIDE MARKET.**

J Rosicky R S First  
*Agr Chem* 18(12):24-26,92-93, 5 TABS.  
 Dec 1963 381 AG8  
 DDT, Europe, Market areas, Pesticides, United States, 2,4-D.

**1059-69****RESIDUE SITUATION HURTS DDT SALES.**

E F Schroeder Jr  
*Agr Chem* 18(10):30  
 Oct 1963 381 AG8  
 Azinphosmethyl, DDT, Heliothis zea, Pesticide residues, Sales.

**EDUCATION****1060-69****LIVING SAFELY WITH PESTICIDES THROUGH EDUCATION AND UNDERSTANDING.**

*Agr Chem* 18(9):52  
 Sep 1963 381 AG8  
 DDT, Fish, Pesticides, Public health.

**1061-69****EFFECTS OF "THE USE OF PESTICIDES" FROM AN INDUSTRIAL VIEWPOINT.**

L R Gardner  
*Residue Rev* 6:23-26, 1 REF  
 1964 389.9 R314  
 DDT, Industry, Pesticides.

**1062-69****THE CONTROL OF TECHNOLOGY. SO-LANDT, O.M.**



## INDUSTRY

1063-69

*Science* 165(3892):445

01 Aug 1969 470 SCI2

Agricultural legislation, Agricultural policies, DDT, Environment, Pesticide residues, Pesticide safety.

### REGULATIONS

1063-69

FDA PUBLISHES PROPOSAL FOR RESIDUE TOLERANCE IN MILK.,

## BIBLIOGRAPHY

*Agr Chem* 20(12):72

Dec 1965 381 AG8

Dichloro-2,2-bis(p-chlorophenyl) ethylene, 1,1-, DDT, Milk, Pesticide residues, TDE.

1064-69

JAPANESE LAWS AND REGULATIONS CONCERNED WITH PESTICIDE AND FOOD ADDITIVE RESIDUES IN FOODSTUFFS.

I Suzuki

*Residue Rev* 4:9-16, 2 REFS., 2 TABS.

1963 389.9 R314

DDT, Food additives, Parathion, Pesticide residues.

# SUBJECT INDEX

- ABATE**  
A field evaluation of abate briquettes in woodland pools. 270
- ABIES**  
The use of balsam fir shoot elongation for timing spruce budworm aerial spray programs in the lake states. 551
- ABSORPTION**  
Absorption and metabolism of C14-labeled DDT by DDTsusceptible and DDT-RESISTANT pink bollworm adults. 59  
Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182  
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312  
Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569  
Accumulation of DDT and dieldrin by microorganisms. 710  
DDT residues absorbed from organic detritus by fiddler crabs. 823  
DDT residues absorbed from organic detritus by fiddler crabs. 824
- ACANTHOSCELIDES OBTECTUS**  
Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192
- ACARICIDES**  
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis. 301  
Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438  
Can we conquer the 'mighty' mites. 558  
Insect tormentors of livestock: IV. The mites. 600
- ACARINA**  
Insect tormentors of livestock: IV. The mites. 600
- ACCIDENT PREVENTION**  
Controlling wasps. 35  
Controlling the Japanese beetle. 36  
Insect control for garden vegetables. 311  
DDT: Criticism, curbs are on the upswing. 665  
Occupational hazards. 899
- ACCIDENTS**  
Pesticides are blamed for 911 California injuries. 1048
- ACER SACCHARUM**  
Control of maple leaf cutter, *Paraclemensia acerifoliella*, by aerial spraying. 377
- ACETONE**  
Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60  
Penetration of seeds by acetone solutes. 334  
Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography. 714
- ACETONITRILE**  
Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content. 700  
Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743  
Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996
- ACETYLCHOLINESTERASE**  
Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- ACHAEA JANATA**  
Countering the castor semi-looper. 483  
A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534
- ACIDS**  
Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006
- ACRIDIDAE**  
Some pests of ornamental plants in Madras. 339  
The toxicity and sublethal effects of p,p'-DDT and dieldrin to *Aglaia urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria: Acrididae). 818
- ACROBASIS**  
Control of pecan nut casebearer. 490
- ADIPOSE TISSUE (ANIMALS)**  
Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655  
On the distribution of pest control agents. 662  
The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692  
Insecticides in human fat in New Zealand. 705  
Tissue and fat preparation for pesticide determination by gas chromatography. 827  
DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843  
DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844  
Residues of DDT and its derivatives in the fat tissues of some market animals. 854  
Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937  
Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium... American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 949
- ADRENAL GLANDS**  
Effect of some pesticides on the adrenal glands in the rat. 580
- ADSORPTION**  
Degradation of DDT in Atlantic salmon (*Salmo salar*). 914  
The effect of the association of organic material with clays on parathion and DDT adsorption. 1028
- AEDES**  
The effects of DDT on oxidative metabolism in susceptible and DDT-RESISTANT *Aedes aegypti*. 165  
Intracellular distribution of TPN-ISOCRITIC dehydrogenase activity in susceptible and insecticide-resistant strains of *Aedes aegypti*. 171  
Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes. 173  
The toxicological action of three organophosphorus insecticides with three species of mosquito larvae. 200  
Toxicological action of DDT on three species of mosquito larvae. 234
- AEDES AEGYPTI**  
Dehydrochlorination and DDT-RESISTANCE in *Aedes aegypti*. 26  
Internal DDE production by normal and DDT-resistant larvae of *Aedes aegypti*. 66  
Dieldrin-resistance in a strain of *Aedes aegypti* (L.) from Puerto Rico. 97  
The susceptibility to insecticides of populations of *Aedes aegypti* from Queensland, Australia. 113  
Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119  
Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126  
Toxicity, pick-up and metabolism of p,p'-DDT and related compounds in *Culex pipiens fatigans* and *Aedes aegypti*. 130  
Susceptibility of mosquitoes to silica gel insecticides. 164  
Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181  
The group effect in the tests on insecticide resistance in *Aedes aegypti*. 198  
Oviposition in DDT resistant and susceptible strains of *Aedes aegypti* (L.) in relation to light preference. 239  
Peritrophic membrane as a vehicle for DDT and DDE excretion in *Aedes aegypti* larvae. 243  
Studies on the mechanism of DDT-RESISTANCE in *Culex pipiens fatigans*. 253  
Heterogeneity in the Trinidad DDT-RESISTANT strain and the QS susceptible strain of *Aedes aegypti* L. The isolation of highly resistant and highly susceptible substrains. 268  
*Aedes aegypti* in the Western Pacific region. 272  
Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277  
Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 278  
Eradication versus control in communicable disease prevention. 298  
The influence of sublethal dosages of insecticides on the basal follicles of *Aedes aegypti* (L.). (abstract). 299



# SUBJECT INDEX

## AEDES CANADENSIS

- Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT. 304
- Organising an eradication programme for *Aedes aegypti* in the USA. 308
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- The optimum size for insecticide spray droplets. 1003

## AEDES CANADENSIS

- A field evaluation of abate briquettes in woodland pools. 270

## AEDES IMPIGER

- Susceptibility of arctic mosquitoes to DDT and malathion. 73

## AEDES NIGRIPES

- Susceptibility of arctic mosquitoes to DDT and malathion. 73

## AEDES TAENIORHYNCHUS

- Technique of continuous exposure for the determination of insecticide resistance in mosquito larvae. 281
- Resistance of *Aedes taeniorhynchus* (Wiedemann) to malathion. 287

## AERIAL DUSTING

- Careful application pays off by reducing drift and residue problems. 800

## AERIAL INSECT CONTROL

- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333

## AERIAL PEST CONTROL

- Low volume spraying by air to control mosquito larvae in California. 170

## AERIAL SPRAYING

- Low volume aerial spraying. 317
- The gypsy moth threat in America. 320
- The determination of DDT deposited on cotton plants in an airspray trial in Tanzania. 331
- Prior local approval is key to successful spray programs. 332
- Low-volume aerial spraying of several insecticides for cotton-insect control. 340
- Control of a spruce budworm outbreak in Quebec through aerial spraying operations. 356
- The damaging occurrence of *Aradus cinamomeus* Panz. in Sweden. 361
- Control of maple leaf cutter, *Paraclemensia acerifoliella*, by aerial spraying. 377
- Control of maple leaf cutter, *Paraclemensia acerifoliella*, by aerial spraying. 378
- Aerial spray tests against gypsy moth. *Porthetria dispar* in New York. 379
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424
- Effects of an aerial DDT spray on aquatic insects in Connecticut. 426
- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487

- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- One hundred planes to spray budworm in New Brunswick. 546
- Hemlock looper control spraying called best planned and safest forest project. 547
- Insecticidal control for the pine looper in Great Britain. I. Aerial spraying. 553
- Aerial forest spraying against spruce budworm - A problem of mutual interest in Canada and the United States. 566
- Influence of certain insecticides applied for the control of *Ostrinia nubilalis* Hbn. on the weeds of treated surfaces. 570
- Residues and chemosterilants: Ultimate distribution. 651
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. 764

## AEROBACTER AEROGENES

- Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802

## AEROSOLS

- Effectiveness of several insecticidal aerosols against the Japanese beetle. 632

## AFRICA

- A simple laboratory method for testing the susceptibility of larvae of *Simulium neavei* complex to insecticides. 941

## AGAR

- Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. 313

## AGRICULTURAL CHEMISTRY

- Agricultural chemical compositions. 980
- Rapid colorimetric determination of DOT in milk and butter. 1033
- Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides. 1034
- Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035
- Comparison of laboratory techniques for the determination of pesticide residues in milk. 1038
- Chlorinated insecticides and miticides Electron capture gas chromatography for determination of DDT in butter and some vegetable oils. 1039
- Recovery of Sulphenone from agriculturally treated crops. 1044

## AGRICULTURAL ECONOMICS

- A good year for pesticide sales. 1055

## AGRICULTURAL HISTORY

- Granular insecticides' their history and literature. 1023

## AGRICULTURAL INDUSTRIES

- Science and sense. As presented to the Weed Society of America, February 8, 1966. 316
- DDT: The critics attempt to ban its use in Wisconsin. 641
- Pesticide residues are not a problem. 717
- Pesticide residues. 845

## AGRICULTURAL LEGISLATION

- Science and sense. As presented to the Weed Society of America, February 8, 1966. 316
- The control of technology. solandt, o m. 1062

## AGRICULTURAL OUTLOOK

- Can we conquer the 'mighty' mites. 558

## AGRICULTURAL POLICIES

- The control of technology. solandt, o m. 1062

## AGRICULTURAL PRODUCTS

- Control of insecticide residues in produce. 626
- Residue tolerances set for DDT in milk. 698
- Commercial aspects of pesticide residues in foodstuff. 793
- Proposed reduction of tolerances in or on raw agricultural commodities. 863

## AGRICULTURAL RESEARCH

- Pesticide residues are not a problem. 717
- Fundamental research is key to safe, effective pesticides. 1013

## AGRILUS ANXIUS

- Maryland arborists discuss insect control. 458

## AGROMYZA PHASEOLI

- Pests of legume seed crops in north Queensland. 509

## AGROTIS

- Some pests of ornamental plants in Madras. 339

## AGROTIS IPSILON

- The efficacy of a mixture of *Bacillus thuringiensis* Berl. and of DDT against *Agrotis ipsilon* Rott. (Noctuidae). 98

## AIR POLLUTION

- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424
- Pesticides: Transatlantic movements in the Northeast trades. 667
- Pesticides in people. Storage of DDT in the people of Israel. 866
- The optimum size for insecticide spray droplets. 1003

## AIRCRAFT

- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487

## AIRCRAFT DISINFESTATION

- Micronised insecticidal dusts for aircraft disinsection. 218
- Effectiveness of several insecticidal aerosols against the Japanese beetle. 632
- Micronized insecticidal dusts for aircraft disinsection. 951

## ALDOSTERONE

- The effect of DDT in the diet on the resting and loading electrocorticogram record. 906

## ALDRIN

- Effects of aldrin and DDT on soil fauna and arable land. I
- Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minuthus* Oliv. 18

- Seed-corn maggot resistance to aldrin in Illinois. 105
- Cockchafers, *Melolontha melolontha*, L. and *M. hippocastani*, Fabr. 127
- Linkage studies of aldrin resistance in *Blattella germanica* (L.). 159
- The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161
- Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire. 203
- The brown-banded cockroach in Hamburg. 236
- Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259
- Control of *Hippelates* gnats with soil treatments using organochlorine insecticides. 291
- Soil treatments with insecticides for control of the eye gnats *Hippelates collusor* and *H. hermsi*. 292
- Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots. 314
- A new disease of bananas in the Cauca Valley: a bacteriosis. 326
- Some pests of ornamental plants in Madras. 339
- Forest entomology. 353
- Control of onion fly, *Delia antiqua*, with seed dressings. 372
- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396
- Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398
- Pesticides and bees. 440
- The damage brought about by *Phloeotribus*. 474
- Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 476
- Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Bch.) and experiments in chemical control. 493
- Control of the tarnished plant bug, *Lygus lineolaris*, on birdsfoot trefoil grown for seed. 502
- Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- Treated bags for control of the corn earworm and fall armyworm. 552
- Experiments on control of the sugar-beet wireworm in southern California bean fields. 565
- Seed dressings and game birds. 585
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 612
- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, *Hippelates collusor*. 613
- Termite control measures in building construction. 624
- Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642
- Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 660
- Effect of soil cultivation, soil surface and water on the persistence of insecticidal residues in soils. 661
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670
- Water pesticides. 2. 674
- Britain imposes pesticide ban. 683
- Pesticide residues in food. 689
- More about the pesticide residue problem. 697
- Gas chromatography with microcoulometric detection for pesticide residue analysis. 709
- Microcoulometric gas chromatography of pesticides. 718
- Pesticide testing in dairy factory laboratories. 731
- Pesticides and the soil fauna; effects of Aldrin and DDT in an arable field. 740
- Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747
- No effect level of DDT in induction of microsomal epoxidation. 753
- Insecticide residues in milk and dairy products. 763
- Pesticides: Present levels in food and possible sources of contamination. 785
- Persistence of DDT, aldrin, and lindane in some midwestern soils. 787
- Chlorinated hydrocarbons as residues in foods. 792
- Cleanup processes for pesticide residue analysis. 798
- Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802
- Section C: Pesticide residue content. 810
- Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 821
- Residues in vegetable crops following soil applications of insecticides. 822
- The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830
- Metals, other elements, and residues in foods. 831
- Quantitative paper chromatography of chlorinated insecticides in soils. 837
- Problems in monitoring DDT and its metabolites in the environment. 847
- Residues in vegetable crops following soil applications of insecticides. 851
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871
- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931
- Pesticide effects in soils on nitrification and plant growth. 976
- Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector. 990
- Microcoulometric gas chromatography of pesticides. 992
- Gas chromatography using an electron absorption detector. 999
- Report on analytical methods for pesticide formulations. 1001
- Selective detection and identification of pesticide residues. 1004
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- Pesticides. 1025
- Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026
- Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027
- Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides. 1034
- Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- Infrared spectra of pesticides. 1042
- Carryover stocks of pesticides increased over 1960 level. 1054
- ALEYRODIDAE**
- Double your cotton yield by spraying. 346
- ALFALFA**
- Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231
- Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. 313



# SUBJECT INDEX

## ALGAE

- Insecticides as a factor in population fluctuations of mites on lucerne. 337
- The sitona weevil--a pest of lucerne (*Sitona humeralis*). 405
- DDT-C14 translocation in alfalfa. 537
- Control of army cutworms in alfalfa during 1959. 564
- Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029
- ### ALGAE
- Effects of insecticides on algae. 895
- ### ALKALIES
- Pesticide testing in dairy factory laboratories. 731
- ### ALLETHRIN
- Development of resistance to synergized pyrethrins in body lice, and cross resistance to DDT. 71
- Studies on fine-particle, coarse-particle, and concentrated aerosols. 199
- Metals, other elements, and residues in foods. 831
- Mode of action of DDT and allethrin on nerve: Cellular and molecular mechanisms. 934
- The metabolism of contact insecticides in stored grains. 946
- Water-base insecticides. 1036
- ### ALLOPHANE
- Thermal decomposition of DDT by some soil constituents. 982
- ### ALPHITOBIOUS
- Toxicological studies on a beetle, *Alphitobius laevigatus* (F.). V. Joint actions of some pairs of like and unlike toxicants. 25
- ### ALSIKE CLOVER
- Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots. 314
- ### ALUMINUM OXIDE
- Estimation of chlorinated pesticide residues in animal and vegetable oils. 842
- Thermal decomposition of DDT by some soil constituents. 982
- ### AMERICAN CYANAMID 18133
- Control of the corn earworm with American Cyanamid 18133. 357
- ### AMERICAN CYANAMID 47300
- Laboratory evaluation of insecticides against the cigarette beetle. 894
- ### AMINO ACIDS
- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Amino acid metabolism in DDT-poisoned American cockroaches. 897
- ### AMINO COMPOUNDS
- DDT susceptibility of *Drosophila melanogaster* in relation to dietary amino nitrogen. 194
- ### AMITROLE
- Metals, other elements, and residues in foods. 831
- Pesticide residues in foods in relation to human health. 904

- Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- ### AMMONIUM CHLORIDE
- Report on analytical methods for pesticide formulations. 1001
- ### AMPHIMALLON MAJALIS
- Insecticidal dusts against Japanese beetles and European chafer for disinsectization of transport vehicles. 87
- Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398
- ### ANAEROBIC BACTERIA
- Reducing DDT persistence. 388
- Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650
- ### ANALOGS
- Insecticides in human fat in New Zealand. 705
- ### ANESTHETICS
- The effects of various anesthetics on the action of DDT on *Anopheles* larvae. 302
- ### ANIMAL ADAPTATION
- Mississippi delta wildlife developing resistance to pesticides. 579
- Effect of DDT or parathion on condition avoidance response of offspring from DDT or parathion treated mothers. (abstract). 881
- ### ANIMAL DISEASE RESISTANCE
- New concepts for cattle tick control. 605
- ### ANIMAL DISEASE TRANSMISSION
- Houseflies, blowflies and cluster flies. 610
- ### ANIMAL DISEASES
- Summary of recent abstracts. VI. Plague. 283
- ### ANIMAL ECOLOGY
- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581
- ### ANIMAL EXTRACTS
- Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786
- Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils. 1012
- ### ANIMAL HISTOLOGY
- The effect of DDT on reproduction in mice. 577
- ### ANIMAL METABOLISM
- Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats. 900
- Degradation and disappearance of ortho, para isomer of technical DDT in living and dead avian tissues. 910
- Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937
- ### ANIMAL NUTRITION
- Protein-deficient diet and DDT toxicity. 587
- The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692

## ANIMAL PHYSIOLOGY

- Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576
- Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE. 591
- Evidence for conversion of DDT to TDE in rat liver: II. Conversion of p,p'-DDT to p,p'-TDE in axenic rats. 592
- The effect of DDT on reproduction in mice. 598
- DDT residues and declining reproduction in Bermuda petrel. 877
- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 883
- The early effects of low DDT doses on the nervous system in animal experiments. 901
- Pharmacodynamic study of DDT in cockerels. 905
- Response of robins to DDT and methoxychlor. 919
- Mode of action of DDT and allethrin on nerve: Cellular and molecular mechanisms. 934
- ### ANIMAL RESPIRATION
- Respiratory exposure of dairy animals to pesticides. in: Organic pesticides in the environment; symposium... American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 960
- ### ANIMALS
- DDT yes or no. 636
- Pesticide residue in freshwater fish oils and meals. 735
- Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786
- Search for new insecticides. 890
- ### ANOPHELES
- Studies on the age composition of *Anopheles culicifacies* populations in India at different phases of development of resistance to DDT. 20
- Practical importance of resistance to insecticides in *Anopheles*. 72
- Hercules AC-5722 as a residual spray for adult mosquitoes. 88
- Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99
- Susceptibility of mosquitoes to silica gel insecticides. 164
- Anopheles moucheti* in Cameroon. 168
- Toxicological action of DDT on three species of mosquito larvae. 234
- Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273
- Entomological factors in persisting transmission of malaria in eradication programs. 290
- Susceptibility to insecticides of certain anophelines according to the time of catch and testing. 296
- Eradication versus control in communicable disease prevention. 298

- ANOPHELES ATROPARVUS**  
Behavioural responses to contact with DDT in *Anopheles atroparvus*. 91
- ANOPHELES CULICIFACIES**  
Susceptibility studies on *Anopheles culicifacies* with DDT and dieldrin in Gujarat State, India. 297
- ANOPHELES FREEBORNI**  
Review of classical malaria control measures. 271
- ANOPHELES FUNESTUS**  
Technical problems of malaria eradication in Africa. 289
- ANOPHELES GAMBIAE**  
Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3  
Technical problems of malaria eradication in Africa. 289
- ANOPHELES MACULIPENNIS**  
Results of tests of sensitivity to insecticides of *Anopheles adults* in rumania. 275
- ANOPHELES QUADRIMACULATUS**  
Review of classical malaria control measures. 271  
Technique of continuous exposure for the determination of insecticide resistance in mosquito larvae. 281  
Malaria and victory in Vietnam. 288  
The United States and malaria: Debts and credits. 294  
The effects of various anesthetics on the action of DDT on *Anopheles* larvae. 302
- ANTARCTICA**  
DDT residues in Adelie penquins and a crab-eater seal from Antarctica. 843  
DDT residues in Adelie penguins and a crab-eater seal from Antarctica. 844  
Organochlorine pesticides in Antarctica. 857
- ANTHOMYIIDAE**  
*Hylemyia ciliatula* Rond. on the *Dianthus* cultures of Pesca and Versilia. 396
- ANTHONOMUS GRANDIS**  
Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil. 28  
Control of the boll weevil on cotton with ultra-low-volume (undiluted) technical malathion. 68  
Fate of DDT and toxaphene applied topically to susceptible and resistant boll weevils. 143  
Field tests for control of overwintered boll weevils. 209  
Entomologists exchange '59 research results. 305  
Low volume aerial spraying. 317  
Low-volume aerial spraying of several insecticides for cotton-insect control. 340  
Effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 363  
The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 364
- Field experiments against several late-season cotton insects in 1959. 380  
Control of several cotton insects in field experiments in 1960. 381  
Field experiments against several late-season cotton insects in 1959. 386  
Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387  
Field experiments on control of overwintered boll weevils. 397  
A preventive boll weevil control program applied to a tensquare-mile area within a treated county. 471  
A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472  
Effects of various water volumes on the effectiveness of methyl parathion-DDT, in controlling the cotton boll weevil, *Anthonomus grandis*. 481  
Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485  
Control of several early-season cotton pests with insecticides. 486  
Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489  
Effect of climatic factors on the susceptibility of insects to insecticides. 514  
Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 529  
Control of boll weevils resistant to chlorinated hydrocarbons. 535  
Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control. 542  
Field experiments with several insecticidal sprays against the boll weevil and bollworm. 560  
Effect of DDT and toxaphene alone and in combination on succinic dehydrogenase activity in homogenates of the boll weevil. 933  
Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936  
The optimum size for insecticide spray droplets. 1003  
Heavy supply and low demand. 1056
- ANTHRACENE**  
Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector. 990
- ANTIBODIES**  
Production of antibodies against insecticide-protein conjugates. 757
- APHIDIDAE**  
Early season insects no problem for B. A. Jordan. 39  
Insect control for garden vegetables. 311  
Tomato yellow top. 328  
Double your cotton yield by spraying. 346
- Chemagro offers 'practical' program to selective-control pests of cotton. 400  
Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 428  
Incidence of field spread of internal cork of sweet potato in insecticide-treated plots. 444  
Maryland arborists discuss insect control. 458  
Pests of legume seed crops in north Queensland. 509  
Insecticide sprays for control of insects on various vegetable crops. 543
- APHIS CRACCIVORA**  
A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472
- APHIS GOSSYPHII**  
A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472
- APHODIUS**  
Pasture cockchafer control interim revised control recommendation. 526
- APICAL SEEDINESS**  
The reduction of insect-caused apical seediness in strawberries. 511
- APIS MELLIFERA**  
DDT resistance in honey bees. 42  
Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases. 138  
Variability in insecticide tolerance of eighteen honey-bee colonies. 221
- APPLES**  
Spiders on apple in Wisconsin and their abundance in a natural and two artificial environments. 14  
An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit. 15  
An ecological study of arthropod populations on apple in northeastern Wisconsin: insect species present. 16  
The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94  
New strategy against the codling moth. 177  
Influence of insecticide-fungicide spray programmes on growth of apple nursery trees. 324  
Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza. 394  
Evaluation of new materials for codling moth control in Washington. 431  
Effect of urea on control of some apple insects with certain insecticides. 432  
Development of resistance to DDT by the apple maggot, *Rhagoletis pomonella*. 450  
The influence of spray programs on the fauna of apple orchards in Nova Scotia: XI. effects of low dosages of DDT on predator populations. 453



# SUBJECT INDEX

## AQUARIUMS

- Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*. 456
- The codling moth and its control. 464
- Essay on insecticidal treatments on the apple fruit fly, *Rhagoletis pomonella* (Walsh) in southwest Quebec. 484
- Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503
- Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 504
- Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium... American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 672
- Statistical study of parathion and DDT residues on apples. 725
- Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple. 732
- Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples. 859
- Applications of polarography for the detection and determination of pesticides and their residues. 998
- Recovery of Sulphenone from agriculturally treated crops. 1044

## AQUARIUMS

- The uptake from water by several species of fresh-water fish of p,p-DDT, dieldrin, and lindane; their tissue distribution and elimination rate. 912

## AQUATIC ANIMALS

- An autoradiographic study of invertebrate uptake of DDT-CL36. 232
- DDT yes or no. 636
- The accumulation of 36Cl ring-labeled DDT in a freshwater marsh. 663
- DDT in fats on Antarctic animals. 704
- Kinetics of DDT in a marine food chain. 893

## AQUATIC BACTERIA

- Food chain studies. 923

## AQUATIC BIRDS

- Pesticide residues in a marine population of double-crested cormorants. 778
- Kinetics of Cl-36 DDT in wild waterfowl. 902
- DDT residues in pacific sea birds: a persistent insecticide in marine food chains. 942

## AQUATIC INSECTS

- Fluctuations in aquatic insect populations associated with aerial applications of DDT to Northern Maine forests. 11
- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121
- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 122
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132

- Apparent DDT tolerance in an aquatic insect disproved by test. 214

- A field evaluation of abate briquettes in woodland pools. 270

- Effects of an aerial DDT spray on aquatic insects in Connecticut. 425

- Effects of an aerial DDT spray on aquatic insects in Connecticut. 426

- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581

- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656

- Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708

## AQUATIC PLANTS

- The accumulation of 36Cl ring-labeled DDT in a freshwater marsh. 663
- Water flora as indicators of irrigation water contamination by DDT. 675
- Kinetics of DDT in a marine food chain. 893

## ARADIDAE

- The damaging occurrence of *Aradus cinnamomeus* Panz. in Sweden. 361

## ARADUS CINNAMOMEUS

- The damaging occurrence of *Aradus cinnamomeus* Panz. in Sweden. 361

## ARAMITE

- Pesticides and bees. 440
- Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues. 699
- Metals, other elements, and residues in foods. 831

## ARGAS PERSICUS

- Insect tormentors of livestock: III. Fleas and ticks. 601

## ARGYRESTHIA FUNDELLA

- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516

## ARGYROTAENIA VELUTINANA

- Insecticide contamination of rooms and equipment used to rear the oriental fruit moth. 737

## ARIZONA

- Laboratory tests with toxaphene, DDT, and Sevin against *Lygus hesperus* on cotton. 359
- Laboratory tests of insecticides against the salt-marsh caterpillar. 413
- The cotton leaf perforator and its control in Arizona. 531
- Cotton leaf perforator and its control in Arizona. 532
- Control of the beet armyworm on cotton in Arizona. 538
- Salt-marsh caterpillar control on cotton in Arizona. 567
- ARMILLARIA MELLEAE*  
Factors affecting the appearance of holly oaks in Southern California. 367

## ARSENIC

- Diagnosis and treatment of poisoning in dogs. 590
- Resistance to BHC in the cattle tick *Boophilus microplus* (can.) in India. 618
- Persistence of certain pesticides in the soil and their effect on crop yields. 712
- Pesticide residues in foods in relation to human health. 904
- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931

## ARTHROPODA

- An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit. 15
- Persistence of resistant populations after the relaxation of the selection pressure. 133
- Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA. 205
- Toxicity of some pesticides to predacious arthropods in Ontario peach orchards. 422
- The influence of seasonal DDT applications upon arthropod populations in jack pine stands. 508
- Effects of DDT, as used in black fly larval control, on stream arthropods. 922

## ASCOTIS

- Giant coffee looper, *Ascotis selenaria reciprocaria*, and its control. 540

## ASPHONDYLIA SESAMI

- Note on the control of gall-fly (*Asphondylia sesami* Felt.) on sesame. 475

## ASSAY

- Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119
- Development of double isotope derivative assays for measurement of pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna, 12-16 April 1965. SB953.P32. 701
- Gas chromatography with microcoulometric detection for pesticide residue analysis. 709
- Comparison of five extraction procedures for the recovery of DDT residues in field-treated collards. 758
- Detection and estimation of chlorinated pesticides in eggs. 826
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041

## ATROPINE

- Diagnosis and treatment of poisoning in dogs. 590
- 2-PAM for pesticide poisoning. 917

## ATTRACTANTS

- Pyridine composition and method for attracting insects. patent 3,325,355. 92
- Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza. 394

## AUTOPSIES

- Some observations on the effects of using organochlorine sprays in an orchard. 716

**AUTORADIOGRAPHY**

An autoradiographic study of invertebrate uptake of DDT-CL36.

232

Distribution of C14-DDT and C14-dieldrin in pregnant mice determined by whole-body autoradiography.

634

**AZINPHOSETHYL**

The sitona weevil--a pest of lucerne (*Sitona humeralis*).

405

**AZINPHOSMETHYL**

Resistance to DDT in the adult codling moth and reference curves for Guthion and carbaryl.

48

The influence of three insecticides on predation of the pear psylla, *Psylla pyricola*.

160

Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass.

175

New strategy against the codling moth.

177

The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland.

196

Field tests for control of overwintered boll weevils.

209

Control of the lesser peach tree borer in Virginia.

358

Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*.

371

Field experiments against several late-season cotton insects in 1959.

380

Control of several cotton insects in field experiments in 1960.

381

Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*.

382

Field experiments against several late-season cotton insects in 1959.

386

Control of vetch bruchid, *Bruchid brachialis*, in Oregon.

389

Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*.

390

Biology and control of leopard moth on pear trees in the United Arab Republic.

393

Field experiments on control of overwintered boll weevils.

397

Chemagro offers 'practical' program to selectively control pests of cotton.

400

Evaluation of chemical and microbial materials for the control of the cabbage looper.

408

*Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control.

416

Effectiveness of insecticides against the European maize borer and green peach aphid on peppers.

427

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.

428

Evaluation of new materials for codling moth control in Washington.

431

DDT resistant codling moths on pears in California.

455

Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*.

456

Field tests with insecticides for pink bollworm control in 1958.

461

The oriental fruit moth and its control.

463

The codling moth and its control.

464

Capsid bugs on fruit.

469

A preventive boll weevil control program applied to a tensquare-mile area within a treated county.

471

Fifty years of research on the pink bollworm in the United States.

479

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958.

485

Control of several early-season cotton pests with insecticides.

486

Field experiments with several insecticidal sprays against the boll weevil and bollworm.

489

Cotton fiber quality as related to some cotton insect control programs and time of fruit setting.

492

Performance of Sevin against grape berry moth.

525

Pasture cockchafer control interim revised control recommendation.

526

Control of *Sparganothis sulfurana* on cranberry.

527

Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control.

542

A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.

548

Control of the potato tuberworm in potatoes.

550

Field experiments with several insecticidal sprays against the boll weevil and bollworm.

560

The navel orangeworm in northern California.

562

Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple.

732

Metals, other elements, and residues in foods.

831

Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography.

997

Applications of polarography for the detection and determination of pesticides and their residues.

998

Residue situation hurts DDT sales.

1059

**AZODRIN**

Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn.

21

Stem applications of azodrin for control of the cotton fleahopper.

501

**BACILLUS POPILLIAE**

Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva.

134

**BACILLUS THURINGIENSIS**

Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests.

64

Sensitivity to the soluble heat-stable toxin of *Bacillus thuringiensis* of strains of *Musca domestica* tolerant to chemical insecticides.

89

The efficacy of a mixture of *Bacillus thuringiensis* Berl. and of DDT against *Agrotis ipsilon* Rott. (Noctuidae).

98

On the use of *Bacillus thuringiensis*-insecticide combinations to control insect pests.

184

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons.

329

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.

428

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons.

495

Control of the corn earworm on sweet corn in Eastern Nebraska.

519

**BACTERIA**

Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva.

134

Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil.

312

Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms.

313

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons.

495

Problems in monitoring DDT and its metabolites in the environment.

847

Pesticide levels and fluctuation in soil bacteria in an irrigated field and a pond of southwest Texas.

858

Interaction of DDT and the gastrointestinal microflora of the rat.

892

Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract).

968

Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants.

972

**BACTERIAL DISEASES (PLANTS)**

A new disease of bananas in the Cauca Valley: a bacteriosis.

326

**BAGS**

Treated bags for control of the corn earworm and fall armyworm.

552

**BAITS**

The leatherjacket risk grows.

148

**BANANAS**

A new disease of bananas in the Cauca Valley: a bacteriosis.

326

**BARLEY**

DDT resistance in barley, *Hordeum vulgare* L. Induced mutants for resistance.

319

Penetration of seeds by acetone solutes.

334

The use of organochlorine insecticides and possible alternatives against leatherjackets.

541

New developments in hybrid barley research.

970

Biochemical investigations into the effect of DDT on barley.

974

Effect of DDT on photosynthesis in certain varieties of barley.

975



# SUBJECT INDEX

## BATS

Some biochemical investigations into susceptibility of barley varieties to DDT.

977

## BATS

The significance of DDT in household and structural pest control - 1969.

635

## BAYER 25141

Field experiments against several late-season cotton insects in 1959.

380

Field tests with insecticides for pink bollworm control in 1958.

461

Control of several early-season cotton pests with insecticides.

486

Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*.

571

## BEANS

Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation.

192

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.

428

Field experiments on the insecticidal control of insects attacking peas, snap and lima beans.

499

Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition.

506

Removal of DDT, malathion, and carbaryl from green beans by commercial and home preparative procedures.

742

## BEAUVERIA BASSIANA

The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*.

19

The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Lepinotarsa decemlineata* Say.

83

## BEDELLIA

Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes.

512

Biology and control of morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes.

513

## BEEF CATTLE

DDT residues in beef cows fed apple pomace.

835

## BEES

Controlling wasps.

35

Pesticides and bees.

440

Bee poisoning versus clover seed weevil control in white dutch clover grown for seed.

441

## BEETS

Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*).

226

The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California.

345

The principle insect pests of beets and the means of their control in turkey.

482

## BENEFICIAL INSECTS

Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil.

28

## BENZENE HEXACHLORIDE

Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minuthus* Oliv.

18

The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*.

19

Destruction of wasps.

40

The insecticidal potency of gamma-BHC and the chlorinated cyclodiene compounds and the significance of resistance to them.

62

Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control.

136

The leatherjacket risk grows.

148

The sensitivity of *Musca domestica* nebulosa f. and *M. domestica vicina* macq. to DDT, BHC and dieldrin, as shown by dosage-mortality curves.

186

Insecticide-cytoplasmic interactions in insects and vertebrates.

224

Relative susceptibility of salt-marsh mosquitoes from Georgia and Florida to insecticides.

233

Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann.

265

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons.

329

Some pests of ornamental plants in Madras.

339

Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen.

347

Forest entomology.

353

Insect pests of pulse crops.

355

The damaging occurrence of *Aradus cinamomeus* Panz. in Sweden.

361

Developments in insecticide control of the rice stem borer in Japan.

445

Control of sugar-beet moth, *Phthorimaea ocellatella*, Boyd.

451

Field tests with insecticides for pink bollworm control in 1958.

461

The damage brought about by *Phloeotribus*.

474

Note on the control of gall-fly (*Asphondylia sesami* Felt.) on sesame.

475

The principle insect pests of beets and the means of their control in turkey.

482

Countering the castor semi-looper.

483

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons.

495

The influence of infestation by early shoot borer *Chiloptera infuscatellus* Sn. on shoot production and yield of sugarcane.

496

Recent developments in and future prospects for the chemical control of the rice stem borer in India.

497

Effects of soil insecticides on apple trees and resulting effect on mite nutrition.

504

Brinjal leaf roller.

517

A note on the control of the semi-cooper, *Achaea Janata* L., on castor.

534

The use of organochlorine insecticides and possible alternatives against leatherjackets.

541

Insect tormentors of livestock: IV. The mites.

600

Insect tormentors of livestock: III. Fleas and ticks.

601

Resistance to BHC in the cattle tick *Boophilus microplus* (can.) in India.

618

Termite control measures in building construction.

624

Saving stored rice from attacks of insect pests.

628

HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle.

637

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.

668

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.

670

Corroborative study of certain chlorinated organic pesticides in dairy products.

685

Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food.

702

Persistence of certain pesticides in the soil and their effect on crop yields.

712

Chlorinated insecticides in the body fat of people in the United States.

723

Chlorinated insecticides in the body fat of people in the United States.

724

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida.

784

Collaborative studies on the analysis of pesticide residues.

806

Collaborative study of certain chlorinated organic pesticides in dairy products.

809

Pesticide residues in commercial animal feeds.

811

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application.

816

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application.

817

Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter.

820

Metals, other elements, and residues in foods.

831

Pesticides in people. Storage of DDT in the people of Israel.

866

Toxic chemicals.

876

The metabolism of contact insecticides in stored grains.

946

The estimation of mixtures of DDT and BHC isomers using The estimation of mixtures of DDT

# SUBJECT INDEX

and BHC isomers using infrared differential null-analysis.	991
infrared differential null-analysis.	991
The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography.	1011
Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata.	1026
Thin-layer chromatography for chlorinated pesticide residue analysis.	1040
Pesticide situation for 1959-60.	1049
<b>BIBLIOGRAPHY</b>	
Mode of action of insecticide synergists.	932
<b>BIDRIN</b>	
Control of several early-season cotton pests with insecticides.	486
Insecticide sprays for control of insects on various vegetable crops.	543
<b>BIO-ELECTRIC POTENTIAL</b>	
Interaction of DDT with the components of lobster nerve membrane conductance.	935
<b>BIOCHEMISTRY</b>	
Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm.	104
Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches.	109
Gas-liquid chromatography analysis of DDT metabolism in <i>Aedes aegypti</i> .	119
Glutathione turnover in <i>Triatoma infestans</i> treated with 2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane.	124
Persistence of resistant populations after the relaxation of the selection pressure.	133
Incidence of <i>Bacillus popilliae</i> (Dutky) in <i>Costelytra zealandica</i> (White) larva.	134
Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in <i>Triatoma infestans</i> .	146
Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm.	176
Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance.	182
Insecticide-cytoplasmic interactions in insects and vertebrates.	224
Synthetic routes to 1,1,1-trichloro-2,2-bis-(p-chlorophenyl) ethane-2-d, deuterio-DDT.	304
Insect control for garden vegetables.	311
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil.	312
The damaging occurrence of <i>Aradus cinnameus</i> Panz. in Sweden.	361
Insecticidal field treatments for the control of the European corn borer, <i>Ostrinia nubilalis</i> (Hubner) in Southwestern Quebec, 1967.	434

Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin.	438
Bloodworms- pests of rice.	442
Control of the corn earworm on sweet corn in Eastern Nebraska.	519
DDT-C14 translocation in alfalfa.	537
Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct.	576
The effect of DDT on reproduction in mice.	577
The effects of DDT on a breeding population of the rufous-sided towhee ( <i>Pipilo e. erythrophthalmus</i> Linnaeus).	578
Effect of some pesticides on the adrenal glands in the rat.	580
Relation between DDT in diets of laying birds and viability of their eggs.	582
Pesticide-induced enzyme breakdown of steroids in birds.	583
Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE.	591
Evidence for conversion of DDT to TDE in rat liver: II. Conversion of p,p'-DDT to p,p'-TDE in axenic rats.	592
Anaerobic degradation of selected chlorinated hydrocarbon pesticides.	650
Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells.	713
Degradation of DDT in Atlantic salmon ( <i>Salmo salar</i> ).	755
The effect of even or uneven applications of DDT prills to pasture on DDT residues in stock.	761
The early effects of low DDT doses on the nervous system in animal experiments.	901
Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine.	938
Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria.	967
Effect of DDT on photosynthesis in certain varieties of barley.	975
Metabolism of DDT by rumen microorganisms in vitro. (Abstract).	996
<b>BIOLOGICAL ASSAY</b>	
Solubility of carbon-14 DDT in water.	27
Antifeeding effect of DDT on bollworm and tobacco budworm larvae.	60
A comparison of some house fly bioassay methods.	74
The toxicity of insecticides to larvae of the codling moth, <i>Cydia pomonella</i> (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract).	94
Biological interaction between plasticizers and insecticides.	142

# BIOLOGICAL CONTROL (INSECTS)

The determination of the insecticidal activity of an 8 year old sample of DDT by biological method.	174
The susceptibility to insecticides of <i>Cydia pomonella</i> (Linnaeus) (Lepidoptera: Tortricidae) from Queensland.	196
WARF anti-resistant: DDT selection and house fly crossresistance.	247
Loss of chlorinated hydrocarbon insecticides from soil surface in the field.	476
The effect of DDT on reproduction in mice.	598
Determination of DDT in biological material.	619
Pesticide residue in freshwater fish oils and meals.	735
Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides.	747
The effect of even or uneven applications of DDT prills to pasture on DDT residues in stock.	761
Cleanup processes for pesticide residue analysis.	798
Pesticide levels and fluctuation in soil bacteria in an irrigated field and a pond of southwest Texas.	858
A thermal preference method of bioassay of the toxicity of insecticidal films to house flies.	1047
<b>BIOLOGICAL CONTROL (INSECTS)</b>	
The old house borer in Eastern States.	38
Practical importance of resistance to insecticides in <i>Anopheles</i> .	72
The efficacy of a mixture of <i>Bacillus thuringiensis</i> Berl. and of DDT against <i>Agrotis ipsilon</i> Rott. (Noctuidae).	98
The biology and control of the <i>Ceanothus</i> stem-gall moth, <i>Periploca ceanothiella</i> (Cosens).	147
New horizons in the fight against insects.	180
On the use of <i>Bacillus thuringiensis</i> -insecticide combinations to control insect pests.	184
Michigan's priority war on mosquitoes.	204
The gypsy moth threat in America.	320
Interference with the biological control of cotton-cushion scale by insecticides and attempts to re-establish a favorable natural balance.	350
Neodiprion taedae linearis: A sawfly pest of loblolly and shortleaf pines.	383
The European pine shoot moth; ecology and control in the Lake States.	465
Fifty years of research on the pink bollworm in the United States.	479
Biology and control of morning-glory leaf miner, <i>Bedellia somnulentella</i> , on sweet potatoes.	513
Some ecological observations and results of the control of <i>Argyresthia fundella</i> F. R.	516
Physico-chemical studies of pesticides. III. Effect of soap on the biological activity of DDT suspensions.	572
University of Wisconsin scientists discuss insecticides and pollution.	695



# SUBJECT INDEX

## BIOLOGICAL CONTROL (PESTS)

- Search for new insecticides. 890
- BIOLOGICAL CONTROL (PESTS)**  
Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests. 64  
Search for biological controls poses threat to nation's food supply. 315
- BIOLOGICAL CONTROL INSECTS)**  
The European pine shoot moth; ecology and control in the Lake States. 465
- BIOLOGY**  
Biology and control of the apple seed chalcid in North Carolina. 530
- BIPHENYL**  
Metals, other elements, and residues in foods. 831
- BIPHENYL COMPOUNDS**  
Biological interaction between plasticizers and insecticides. 142
- BIRDS**  
Dieldrin and DDT: Effects on sparrow hawk eggshells and reproduction. 183  
New contributions to the subject 'birds and agriculture'. 574  
Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576  
The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo e. erythrophthalmus* Linnaeus). 578  
Relation between DDT in diets of laying birds and viability of their eggs. 582  
Pesticide-induced enzyme breakdown of steroids in birds. 583  
Eggs and chlorinated hydrocarbons. 645  
DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide. 678  
Some observations on the effects of using organochlorine sprays in an orchard. 716  
Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722  
Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741  
Excretion of DDT by migratory birds. 762  
Response of robins to DDT and methoxychlor. 767  
DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843  
DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844  
Organochlorine pesticides in Antarctica. 857  
DDT residues and declining reproduction in Bermuda petrel. 877  
Degradation and disappearance of ortho, para isomer of technical DDT in living and dead avian tissues. 910  
Response of robins to DDT and methoxychlor. 919  
On the toxicology of Pyrethrum to warm blooded animals. 1030

## BIRDSFOOT TREFOIL

- Control of the tarnished plant bug, *Lygus lineolaris*, on birdsfoot trefoil grown for seed. 502

- BIS (P-CHLOROPHENYL)-Z-NITROPROPANE, 1,1-**  
Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181

- BIS(P-CHLOROPHENYL)-2-NITROPROPANE, 1,1-**  
Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181

## BLATTELLA GERMANICA

- A new DDT-METABOLIZING enzyme in the German cockroach. 30  
Inheritance of resistance to DDT in *Blattella germanica*. 69  
Resistance to Telodrin in the German cockroach, *Blattella germanica*. 70  
Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches. 109  
Toxicology and physiology of DDT resistance in the German cockroach. 117  
Metabolism of injected proline in DDT-POISONED German cockroaches. 120  
Linkage studies of aldrin resistance in *Blattella germanica* (L.). 159  
The determination of the insecticidal activity of an 8 year old sample of DDT by biological method. 174  
Some biological comparisons of resistant and nonresistant strains of the German cockroach, *Blattella germanica*. 178  
A gynandromorph of the German cockroach, *Blattella germanica*. 197  
DDT and related compounds in dog food and CSMA media used in insect rearing. 945

## BLATTIDAE

- Cockroach control - past, present and future. 61  
Temperature and the action of DDT on the cockroach nervous system. 81  
Some chemical characteristics of a DDT-induced neuroactive substance from cockroaches and crayfish. 107  
Linkage studies of aldrin resistance in *Blattella germanica* (L.). 159  
The brown-banded cockroach in Hamburg. 236  
The apparent binding of dDT to tissue components. 915  
Some chemical characteristics of a DDT-INDUCED neuroactive substance from cockroaches and crayfish. 1002

## BLINDNESS

- The Simulium control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274

## BLISSUS LEUCOPTERUS

- Lawn and household pesticides are discussed by CSMA speakers. 633

## BLOOD CELLS

- An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells. 925

## BLOOD COMPOSITION

- An epidemiologic application of the study of DDE levels in whole blood. 726

## BLOOD PARASITES

- Tick fever in poultry. 593

## BLOOD TRANSFUSIONS

- Diagnosis and treatment of poisoning in dogs. 590

## BOOPHILUS

- Resistance to BHC in the cattle tick *Boophilus microplus* (can.) in India. 618

## BOOPHILUS ANNULATUS

- New concepts for cattle tick control. 605

## BOOPHILUS ANNULATUS MICROPLUS

- New concepts for cattle tick control. 605

## BORRELIA ANSERINA

- Tick fever in poultry. 593

## BOVICOLA OVIS

- Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

## BRACON MELLITOR

- Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil. 28

## BRACONIDAE

- Chemical control of the tea tortrix (*Homona coffearia* Nietner). 384

## BRAIN

- Effects of DDT on brain electrical activity in awake, unrestrained rats. 596  
Excretion of DDT by migratory birds. 762  
The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum. 887  
Concentration of DDT in brain and other tissues in relation to symptomatology. 916

## BREEDING

- Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257  
The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo e. erythrophthalmus* Linnaeus). 578  
Effect of DDT or parathion on condition avoidance response of offspring from DDT or parathion treated mothers. (abstract). 881

## BROCCOLI

- Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia. 429

## BROMO-2-CHLORO-1,1,1-TRIFLUOROETHANE, 2-

- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938

## BROMOPHOS

- Temperature effects on the toxicity of five insecticides against five species of stored-product insects. 125

- BRUCHUS**  
Control of vetch bruchid, *Bruchid brachialis*, in Oregon. 389
- BUCCULATRIX**  
The cotton leaf perforator and its control in Arizona. 531  
Cotton leaf perforator and its control in Arizona. 532
- BUILDINGS**  
Termite control measures in building construction. 624
- BUPRESTIDAE**  
Maryland arborists discuss insect control. 458
- BUSSEOLA**  
Insecticide studies on the maize stalk borer, *Busseola fusca* (Fuller) in E. Africa. 536
- BUSSEOLA FUSCA**  
Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa. 230
- BUTTER**  
Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820  
Rapid colorimetric determination of DOT in milk and butter. 1033  
Chlorinated insecticides and miticides Electron capture gas chromatography for determination of DDT in butter and some vegetable oils. 1039
- BY-PRODUCTS**  
Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- C-14**  
Insecticide solubility: Solubility of carbon-14 DDT in water. 988
- CABBAGE**  
Cabbage looper control in Florida - a cooperative program. 404  
Insecticide sprays for control of insects on various vegetable crops. 543  
Effectiveness of DDT for cabbage caterpillar control in Indiana, 1945 to 1960. 555
- CACAO**  
A leaf disorder of cacao in Costa Rica. 330  
Costa Rican cacao insects: their role in cherelle wilt and effect on yield. 335
- CALCIUM ARSENATE**  
Growth and development of cotton as affected by toxaphene, DDT, methyl parathion, and calcium arsenate. 366  
Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*. 456  
Control of the potato tuberworm in potatoes. 550  
Some effects of toxaphene-DDT and calcium arsenate on growth and development of cotton. 964
- CALIFORNIA**  
An analysis of house fly resistance to insecticides in California. 90  
Interference with the biological control of cotton-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350
- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 521  
The navel orangeworm in northern California. 562
- CALLIPHORA**  
Houseflies, blowflies and cluster flies. 610
- CAMELS**  
Getting rid of camel mange. 607
- CANADA**  
Development of DDT resistance in certain mayflies in New Brunswick. 249  
Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642
- CAPTAN**  
Designing orchard experiments for European red mite control. 385  
Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues. 594  
Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple. 732  
Metals, other elements, and residues in foods. 831
- CARABIDAE**  
Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78
- CARBAMATES**  
Cockroach control - past, present and future. 61  
Practical importance of resistance to insecticides in *Anopheles*. 72  
Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78  
The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161  
Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215  
European pine shoot moth. 228  
DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254  
The gypsy moth threat in America. 320  
Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347  
Cabbage looper control in Florida - a cooperative program. 404  
Status and control of the corn stem weevil in the Florida Everglades. 439  
Fifty years of research on the pink bollworm in the United States. 479  
Essay on insecticidal treatments on the apple fruit fly, *Rhagoletis pomonella* (Walsh) in southwest Quebec. 484  
Don't take lightly these brinjal borers. 518
- A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534  
The behavior of DDT and Zectran on a forest soil. 666  
Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722  
Some remarks on plant protection preparation-tolerances. 733  
Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application. 816  
Residue analysis in the dairy industry. in: Zwig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application. 817  
DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880  
Mode of action of insecticide synergists. 932
- CARBARYL**  
Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil. 28  
The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenee) (Lepidoptera: Noctuidae) to several contact insecticides. 37  
Resistance to DDT in the adult codling moth and reference curves for Guthion and carbaryl. 48  
Carbaryl, phosphamidon, and DDT tests on the western hemlock looper in Washington. 58  
Laboratory studies on resistance of the body louse to insecticides. 67  
Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78  
Biology and control of leopard moth on pear trees in the United Arab Republic. 84  
Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles. 87  
The biology of the European corn borer, *Ostrinia nubilalis* (Hubner), in Manitoba. 100  
The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 123  
Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 135  
The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161  
Biology and control of the spittlebug *Prosapia bicincta* in coastal Bermuda grass. 175  
Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L. 189  
The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland. 196



# SUBJECT INDEX

## CARBOFURAN

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215

Micronised insecticidal dusts for aircraft disinsectisation. 218

European pine shoot moth. 228

Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231

Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 276

Insect control for garden vegetables. 311

Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions. 318

The gypsy moth threat in America. 320

Sensorial analysis on tubers of native potatoes treated with insecticides. 321

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 329

Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333

Precision application credited with success of forest project. 338

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341

Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347

Chemicals that take care of the mango hopper. 354

Laboratory tests with toxaphene, DDT, and Sevin against *Lygus hesperus* on cotton. 359

Insecticide control of *Heliothis punctigera* Walengr. II. Linseed crop, 1961. 360

European corn borer control in potatoes. 362

European corn borer control in peppers. 368

European maize borer control in peppers. 369

Dosage levels and seasonal behavior of insecticides used in control of European pine shoot moth. 370

Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 371

Aerial spray tests against gypsy moth. *Porthetria dispar* in New York. 379

Control of several cotton insects in field experiments in 1960. 381

Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*. 382

Field experiments against several late-season cotton insects in 1959. 386

Biology and control of leopard moth on pear trees in the United Arab Republic. 393

Field experiments on control of overwintered boll weevils. 397

Control of the tadpole shrimp, *Triops longicaudatus* in California rice fields. 407

Laboratory tests of insecticides against the salt-marsh caterpillar. 413

Effectiveness of insecticides against the corn earworm in sorghum heads. 421

Effectiveness of insecticides against the European maize borer and green peach aphid on peppers. 427

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 428

Evaluation of new materials for codling moth control in Washington. 431

Minimum number of insecticide applications for the control of the European corn borer on sweet corn in Quebec. 433

Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967. 434

Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438

Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 447

Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton. 449

DDT resistant codling moths on pears in California. 455

Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*. 456

The South African carnation roller moth *Epichoristodes acerbella* (Walk.) Diakonoff. 457

Field tests with insecticides for pink bollworm control in 1958. 461

The oriental fruit moth and its control. 463

The codling moth and its control. 464

Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions. 470

A preventive boll weevil control program applied to a tensquare-mile area within a treated county. 471

Control of bollworm adults on cotton with insecticides. 473

Cutworms and armyworms. 478

Fifty years of research on the pink bollworm in the United States. 479

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 495

Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499

Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503

The insects injurious to potatoes. 507

Don't take lightly these brinjal borers. 518

Control of the corn earworm on sweet corn in Eastern Nebraska. 519

Performance of sevin against grape berry moth. 524

Performance of Sevin against grape berry moth. 525

Pasture cockchafer control interim revised control recommendation. 526

Control of *Sparganothis sulfurana* on cranberry. 527

The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

Biology and control of the apple seed chalcid in North Carolina. 530

The cotton leaf perforator and its control in Arizona. 531

A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534

Control of boll weevils resistant to chlorinated hydrocarbons. 535

Hemlock looper control spraying called best planned and safest forest project. 547

A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548

Control of the potato tuberworm in potatoes. 550

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 560

The navel orangeworm in northern California. 562

Salt-marsh caterpillar control on cotton in Arizona. 567

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

Some remarks on plant protection preparation-tolerances. 733

Removal of DDT, malathion, and carbaryl from green beans by commercial and home preparative procedures. 742

Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods. 745

Removal of DDT, parathion, and carbaryl from spinach by commercial and home preparative methods. 780

Laboratory evaluation of insecticides against the cigarette beetle. 894

Effects of insecticides on algae. 895

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT- and parathion-resistant house-flies. 1014

Pesticides are blamed for 911 California injuries. 1048

## CARBOFURAN

Seed-corn maggot resistance to aldrin in Illinois. 105

Status and control of the corn stem weevil in the Florida Everglades. 439

**CARBOHYDRATES**

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of Nymphal *Triatoma infestans*. 229

**CARBON**

Solubility of carbon-14 DDT in water. 27

**CARBON DIOXIDE**

Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

**CARBON ISOTOPES**

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77

Toxicology and physiology of DDT resistance in the German cockroach. 117

Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths. 195

DDT-C14 translocation in alfalfa. 537

Excretion of DDT by migratory birds. 762

**CARBON TETRACHLORIDE**

Destruction of wasps. 40

**CARBON-14**

Partial characterization of the in vivo metabolites of DDT-C14 in *Triatoma infestans*. 31

**CARBOPHENOTHION**

New insecticides for lygus bug control on vegetable seed crops. 336

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341

New insecticides for lygus bug control on vegetable seed crops. 373

Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 390

Evaluation of insecticides for control of the tobacco thrips on peanuts. 409

Evaluation of new materials for codling moth control in Washington. 431

Effect of mite control on corn yield. 448

DDT resistant codling moths on pears in California. 455

A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534

Gas chromatography using an electron absorption detector. 999

Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides. 1034

**CARCINOGENS**

Pesticide residues in foods in relation to human health. 904

**CARPOCAPSA**

DDT-RESISTANT codling moths on pears in California. 153

Evaluation of new materials for codling moth control in Washington. 431

Effect of urea on control of some apple insects with certain insecticides. 432

**CARPOCAPSA POMONELLA**

Resistance to DDT in the adult codling moth and reference curves for guthion and carbaryl. 48

The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94

New strategy against the codling moth. 177

The gypsy moth threat in America. 320

Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza. 394

Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438

The codling moth and its control. 464

Insecticide contamination of rooms and equipment used to rear the oriental fruit moth. 737

Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples. 859

**CARPOPHILUS**

Experiments for the control of sap beetles in sweet corn grown for processing. 417

**CARROTS**

Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon. 691

Residues in vegetable crops following soil applications of insecticides. 822

**CASTORBEANS**

Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347

Countering the castor semi-looper. 483

A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534

**CATERPILLARS**

Porina and grassgrubs put curbs on production. 420

Navy bean pests. 488

Pests of legume seed crops in north Queensland. 509

**CATHARTICS**

Diagnosis and treatment of poisoning in dogs. 590

**CATTLE**

Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 584

Control of face flies, *Musca autumnalis* on beef cattle in Indiana. 602

New concepts for cattle tick control. 605

The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692

Retention of DDT and DDE by the bovine. 749

The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 751

The effect of even or uneven applications of DDT prills to pasture on DDT residues in stock. 761

Factors contributing to the loss of insecticide deposits on cattle. 832

Distribution of p,p'-DDT residues in adipose and muscle tissues of beef cattle. 836

Secretion of DDT by lactating cows fed thyroprotein. 853

Respiratory exposure of dairy animals to pesticides. 874

Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937

Detoxification of DDT by the perfused bovine liver. 959

Respiratory exposure of dairy animals to pesticides. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 960

**CEANOTHUS**

The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147

**CELLS**

Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713

Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896

**CENTRAL NERVOUS SYSTEM**

Uptake of DDT by the American cockroach central nervous system. 79

Temperature and the action of DDT on the cockroach nervous system. 81

Some chemical characteristics of a DDT-induced neuroactive substance from cockroaches and crayfish. 107

The early effects of low DDT doses on the nervous system in animal experiments. 901

**CENTRUROIDES VITTATUS**

The effect of residual deposits of insecticides on the scorpion, *Centruroides vittatus*. 193

**CERAMBYCIDAE**

The old house borer in Eastern States. 38

Maryland arborists discuss insect control. 458

**CERATOCYSTIS ULMI**

Low temperature sprays for Dutch elm disease control. 323

**CERCOPIDAE**

Note on damage to grasses in the Peace River region by the spittlebug, *Philanoria bilineata* Say. (Cercopidae: Hemiptera). 344

**CHAETOCNEMA TIBIALIS**

Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*). 226

**CHALCIDAE**

Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503

**CHALCODERMUS**

Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control. 542



# SUBJECT INDEX

## CHEESE

### CHEESE

Distribution and stability of DDE, DDD, and DDT in Monterey and cheddar cheese during manufacture and storage. 620

Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820

### CHEMICAL ANALYSIS

Insecticides in human fat in New Zealand. 705

Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 768

Pesticide levels and fluctuation in soil bacteria in an irrigated field and a pond of southwest Texas. 858

Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs. 869

Degradation of DDT in Atlantic salmon (*Salmo salar*). 914

The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography. 1011

Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils. 1012

Estimation of DDT in factory waste. 1022

Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027

Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029

### CHEMICAL CONTROL (INSECTS)

Biology and control of native and introduced forest insects in the Nearctic Zone. 6

An ecological approach to the insecticide problem. 17

How to control bed bugs. 34

Controlling wasps. 35

Controlling the Japanese beetle. 36

The old house borer in Eastern States. 38

Early season insects no problem for B. A. Jordan. 39

Destruction of wasps. 40

Wasp nests. 45

Cockroach control - past, present and future. 61

Practical importance of resistance to insecticides in *Anopheles*. 72

The eradication of *Glossina morsitans submorsitans* Newst. and *Glossina tachinoides* Westw. in part of a river flood plain in Northern Nigeria by chemical means. Part III. 76

Biology and control of leopard moth on pear trees in the United Arab Republic. 84

Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles. 87

Pyridine composition and method for attracting insects. patent 3,325,355. 92

The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94

The efficacy of a mixture of *Bacillus thuringiensis* Berl. and of DDT against *Agrotis ipsilon* Rott. (Noctuidae). 98

The biology of the European corn borer, *Ostrinia nubilalis* (Hubner), in Manitoba. 100

DDT resistance in *Oncopera*. 101

On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulunga, Tanzania. 106

Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches. 109

Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 122

Temperature effects on the toxicity of five insecticides against five species of stored-product insects. 125

Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126

Persistence of resistant populations after the relaxation of the selection pressure. 133

Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control. 136

The eradication of *Glossina morsitans submorsitans* Newst. and *Glossina tachinoides* Westw. in part of a river flood plain in Northern Nigeria by chemical means. Part II. 137

The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147

The leatherjacket risk grows. 148

Southern tree chapter briefed on borer control. 158

*Anopheles moucheti* in Cameroon. 168

Low volume spraying by air to control mosquito larvae in California. 170

Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes. 173

Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176

New strategy against the codling moth. 177

New horizons in the fight against insects. 180

Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182

On the use of *Bacillus thuringiensis*-insecticide combinations to control insect pests. 184

The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland. 196

The group effect in the tests on insecticide resistance in *Aedes aegypti*. 198

Antiresistant DDT continues to offer superior fly control. 202

Michigan's priority war on mosquitoes. 204

Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Colombia. 206

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215

Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers. 222

Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*). 226

European pine shoot moth. 228

Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa. 230

Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231

The brown-banded cockroach in Hamburg. 236

Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238

Insecticide-resistance in *Culex pipiens fatigans*. 245

Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250

DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254

The susceptibility of *Culex pipiens molestus* Forskal in Israel to several insecticides in 1958-1960 and in 1965. 269

A field evaluation of abate briquettes in woodland pools. 270

Review of classical malaria control measures. 271

*Aedes aegypti* in the Western Pacific region. 272

Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273

The *Simulium* control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274

Results of tests of sensitivity to insecticides of *Anopheles* adults in Rumania. 275

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 278

Importance of pesticides in preventive medicine. 280

Prospects for the eradication of malaria in Algeria. 282

Selective control of *Simulium damnosum* and river management. 286

Malaria and victory in Vietnam. 288

Entomological factors in persisting transmission of malaria in eradication programs. 290

DDT-AEROSOL against *Ixodes ricinus*. 293

The United States and malaria: Debts and credits. 294

Seasonal variations in the susceptibility of <i>Culex pipiens</i> L. to DDT and dieldrin.	295
Susceptibility to insecticides of certain anophelines according to the time of catch and testing.	296
Susceptibility studies on <i>Anopheles culicifacies</i> with DDT and dieldrin in Gujarat State, India.	297
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis.	301
Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT.	304
Organising an eradication programme for <i>Aedes aegypti</i> in the USA.	308
The gypsy moth threat in America.	320
Tomato spotted wilt (tomato spotted wilt virus).	327
Tomato yellow top.	328
Some pests of ornamental plants in Madras.	339
Control of the white mite on cotton with various powder and dust products.	342
Note on damage to grasses in the Peace River region by the spittlebug, <i>Philaronia bilineata</i> Say, (Cercopidae: Hemiptera).	344
Double your cotton yield by spraying.	346
Control of the castor shoot and capsule borer, <i>Dichocrocis punctiferalis</i> Guen.	347
An estimate of the area of Danish forestry which is treated with pesticides other than herbicides.	351
Setting up a method for control of clover weevils.	352
Chemicals that take care of the mango hopper.	354
Insect pests of pulse crops.	355
Insecticide control of <i>Heliothis punctigera</i> Walengr. II. Linseed crop, 1961.	360
The damaging occurrence of <i>Aradus cinamomeus</i> Panz. in Sweden.	361
Factors affecting the appearance of holly oaks in Southern California.	367
Chemical control of mango hoppers ( <i>Idiocerus</i> spp.).	376
<i>Neodiprion tacdae linearis</i> : A sawfly pest of loblolly and shortleaf pines.	383
Chemical control of the tea tortrix ( <i>Homona coffearia</i> Nietner).	384
Biology and control of leopard moth on pear trees in the United Arab Republic.	393
Bioecology and chemical control of the apple codling moth ( <i>Carpocapsa pomonella</i> ) L. in Mendoza.	394
Control of grass grub and porina.	395
<i>Hylemyia cilicrura</i> Rond. on the <i>Dianthus</i> cultures of Pescia and Versilia.	396
Natural enemies of <i>Laspeyresia pomonella</i> L. (Lepidoptera, Tortricidae) and the effect of chemical treatment on their useful activity.	399

Alternatives to DDT for the control of the pea moth on dry harvesting peas.	403
Cabbage looper control in Florida - a cooperative program.	404
The sitona weevil--a pest of lucerne ( <i>Sitona humeralis</i> ).	405
The blue oat mite <i>Penthaleus major</i> (Duges) (Acarina: Eupodidae).	406
Experiments on the insecticidal control of <i>Oxyancus fuscomaculatus</i> Walker (Lepidoptera: Hepialidae).	412
Those hungry gypsies (Photo story).	423
Indications on plant care for olive crop cultivation.	430
Minimum number of insecticide applications for the control of the European corn borer on sweet corn in Quebec.	433
Insecticidal field treatments for the control of the European corn borer, <i>Ostrinia nubilalis</i> (Hubner) in Southwestern Quebec, 1967.	434
Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967.	435
Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin.	438
Status and control of the corn stem weevil in the Florida Everglades.	439
Bloodworms- pests of rice.	442
Developments in insecticide control of the rice stem borer in Japan.	445
The South African carnation roller moth <i>Epichoristodes acerbella</i> (Walk.) Diakonoff.	457
Maryland arborists discuss insect control.	458
Grass grub problem awaits solution.	462
The oriental fruit moth and its control.	463
The codling moth and its control.	464
Raspberry moth.	468
Capsid bugs on fruit.	469
A preventive boll weevil control program applied to a tensquare-mile area within a treated county.	471
A preventive boll weevil control program applied to a tensquare-mile area within an untreated county.	472
The damage brought about by <i>Phloeotribus</i> .	474
Note on the control of gall-fly ( <i>Asphondylia sesami</i> Felt.) on sesame.	475
Rice leafhoppers.	477
Cutworms and armyworms.	478
Fifty years of research on the pink bollworm in the United States.	479
The principle insect pests of beets and the means of their control in turkey.	482

Countering the castor semi-looper.	483
Essay on insecticidal treatments on the apple fruit fly, <i>Rhagoletis pomonella</i> (Walsh) in southwest Quebec.	484
Navy bean pests.	488
Morphological-biological report of the cabbage maggot <i>Hylemia brassicae</i> (Bch.) and experiments in chemical control.	493
Compatibility studies on <i>Bacillus thuringiensis</i> Berliner with chlorinated hydrocarbons.	495
The influence of infestation by early shoot borer <i>Chilotraea infuscatellus</i> Sn. on shoot production and yield of sugarcane.	496
Recent developments in and future prospects for the chemical control of the rice stem borer in India.	497
Some recommendations for the control of perforators of seeds of Anonaceae ( <i>Bephrata</i> sp. order Hymenoptera).	500
Apple chalcid, <i>Torymus varians</i> (Wlk.), (Hymenoptera: Torymidae), in Quebec.	503
The insects injurious to potatoes.	507
Pests of legume seed crops in north Queensland.	509
Chemical control of <i>Drosicha mangiferae</i> (Green), a serious pest of Citrus spp. in Madhya Pradesh.	510
Some ecological observations and results of the control of <i>Argyresthia fundella</i> F. R.	516
Brinjal leaf roller.	517
Don't take lightly these brinjal borers.	518
Pasture cockchafer control interim revised control recommendation.	526
Investigations on the biology and control of <i>Melolontha melolontha</i> in hazelnut plantations.	533
A note on the control of the semi-cooper, <i>Achaea Janata</i> L., on castor.	534
Bark beetles.	539
The use of organochlorine insecticides and possible alternatives against leatherjackets.	541
Can we conquer the 'mighty' mites.	558
Influence of certain insecticides applied for the control of <i>Ostrinia nubilalis</i> Hbn. on the weeds of treated surfaces.	570
Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick.	581
Black flies (Diptera, Simuliidae) of Vologda region and their control.	597
The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia.	599
Insect tormentors of livestock: III. Fleas and ticks.	601
Getting rid of camel mange.	607
Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice.	608



# SUBJECT INDEX

## CHEMICAL CONTROL (PESTS)

Herbicide-insecticide formulations for control of the American dog tick.	609
Houseflies, blowflies and cluster flies.	610
New restrictions on use of DDT.	615
Residual insecticides for use against tsetse flies in Rhodesia.	617
Saving stored rice from attacks of insect pests.	628
HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle.	637
University of Wisconsin scientists discuss insecticides and pollution.	695
Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.	769
Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary.	770
Long-term movement of DDT applied to soil for termite control.	846
Pesticide residues - USDA'S position.	860
Search for new insecticides.	890
The effects of treatments against <i>Ostrinia</i> ( <i>Pyrausta</i> ) <i>nubilalis</i> Hb. on the production of hybrid corn.	978
The optimum size for insecticide spray droplets.	1003
<b>CHEMICAL CONTROL (PESTS)</b>	
The selective control of simuliid larvae by particulate insecticides and its significance in river management.	2
Insects and related pests of house plants; how to control them.	128
Fewer pesticides- More control.	227
Insect control for garden vegetables.	311
Science and sense. As presented to the Weed Society of America, February 8, 1966.	316
A new disease of bananas in the Cauca Valley: a bacteriosis.	326
DDT and the farmer.	343
Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control.	398
Controlling peach yellows in a peach breeding program.	480
Pests and diseases threatening our cherries.	520
Effect of DDT on control of corn earworms in sweet corn entries selected for varying resistance.	545
African red tick eradication with DDT. Final report on eradication of red tick from Africa, and USA.	616
The significance of DDT in household and structural pest control - 1969.	635
Pesticide residues are not a problem.	717

Chemical vs environmental changes. Their effects on wildlife.	921
<b>CHEMICAL CONTROL (PLANT DISEASES)</b>	
Diseases and parasites of the rose.	322
Low temperature sprays for Dutch elm disease control.	323
<b>CHEMICAL CONTROL (WEEDS)</b>	
Influence of certain insecticides applied for the control of <i>Ostrinia nubilalis</i> Hbn. on the weeds of treated surfaces.	570
<b>CHEMICAL CONTROL INSECTS)</b>	
The European pine shoot moth; ecology and control in the Lake States.	465
<b>CHEMICAL REACTIONS</b>	
Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms.	313
Degradation of DDT in Atlantic salmon ( <i>Salmo salar</i> ).	755
<b>CHEMICAL STRUCTURE</b>	
Toxicological studies on a beetle, <i>Alphitobius laevigatus</i> (F.). V. Joint actions of some pairs of like and unlike toxicants.	25
<b>CHEMICALS</b>	
The old house borer in Eastern States.	38
Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT.	304
Effect of storage on cottonseed and cottonseed products.	621
Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food.	702
Pesticide testing in dairy factory laboratories.	731
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agriculture commodities. DDT.	754
An evaluation of the effects of the <i>Aedes aegypti</i> eradication program on wildlife in South Florida.	784
Problems in monitoring DDT and its metabolites in the environment.	847
Effects of certain insecticides on earthworms.	903
<b>CHEMISTRY</b>	
Recommended analytical methods for pesticides. 17. 2,4-D, 2, 4-D salts and 2,4-d formulations. 18. DDT dusts and waterdispersible powders.	981
Specificity of diarylhaloethane-dehydrohalogenase of susceptible and DDT-RESISTANT house flies.	986
3,6,9,10-tetrahalogenphenanthrene. A new cyclization reaction of DDT derivatives.	1032
Formulation analysis: The effect of different storage treatments on the susceptibility, agglomeration and deterioration of surfactants of DDT water-dispersible powders.	1043
<b>CHEMORECEPTORS</b>	
The response of the labellar taste receptors of DDT-RESISTANT and non-resistant houseflies ( <i>Musca domestica</i> ) to DDT.	57
Uptake of DDT by the American cockroach central nervous system.	79
A comparison of chemoreceptor and whole-fly responses to DDT and parathion.	211

<b>CHEMOSTERILANTS</b>	
Cockroach control - past, present and future.	61
Practical importance of resistance to insecticides in <i>Anopheles</i> .	72
<b>CHEMOTROPISM</b>	
Effect of insecticide poisoning on chemoreception in the house fly, <i>Musca domestica</i> vicinaL. (Diptera: Muscidae).	212
<b>CHEMURGY</b>	
Residues in the body fat of steers fed kelthane in their ration. (Abstract).	937
<b>CHERELLE WILT (CACAO)</b>	
Costa Rican cacao insects: their role in cherelle wilt and effect on yield.	335
<b>CHERRIES</b>	
Pests and diseases threatening our cherries.	520
<b>CHICK EMBRYOS</b>	
DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes.	880
<b>CHICKENS</b>	
Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues.	594
Depletion of DDT from commercial layers.	595
Residues in eggs and tissues of chickens on rations containing low levels of DDT.	789
Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs.	848
Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract).	849
Pharmacodynamic study of DDT in cockerels.	905
<b>CHICKS</b>	
Sticktight flea control on chickens with malathion dust self-treatment.	614
<b>CHILDREN</b>	
Insecticides in human fat in New Zealand.	703
<b>CHINESE SOAPBERRIES</b>	
Control of earthworm.	573
<b>CHIRONOMIDAE</b>	
Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.	121
Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.	132
<b>CHLORBENSIDE</b>	
Metals, other elements, and residues in foods.	831
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041
Infrared spectra of pesticides.	1042
<b>CHLORDANE</b>	
Controlling wasps.	35
Controlling the Japanese beetle.	36
The relative susceptibility of the larvae of <i>Spodoptera mauritia</i> acronyctoides (Guenee) (Lepidoptera: Noctuidae) to several contact insecticides.	37
The old house borer in Eastern States.	38
Destruction of wasps.	40

Resistance to Telodrin in the German cockroach, <i>Blattella germanica</i> .	70
Seed-corn maggot resistance to aldrin in Illinois.	105
Cockchafers, <i>Melolontha melolontha</i> , L. and <i>M. hippocastani</i> , Fabr.	127
Insects and related pests of house plants; how to control them.	128
Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases.	138
Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth ( <i>Tineola bisselliella</i> (Hum.), Lep.).	139
The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions.	161
Some biological comparisons of resistant and nonresistant strains of the German cockroach, <i>Blattella germanica</i> .	178
The brown-banded cockroach in Hamburg.	236
Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control.	398
Control of the lesser cornstalk borer attacking peanuts.	411
The damage brought about by <i>Phloeotribus</i> .	474
Morphological-biological report of the cabbage maggot <i>Hylemia brassicae</i> (Bch.) and experiments in chemical control.	493
The insects injurious to potatoes.	507
Treated bags for control of the corn earworm and fall armyworm.	552
Experiments on control of the sugar-beet wireworm in southern California bean fields.	565
Termite control measures in building construction.	624
Responses of raisin moth larvae to residues of six insecticidal sprays.	631
Collection and analysis of synthetic organic pesticides from surface and ground water.	652
Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon.	691
Persistence of certain pesticides in the soil and their effect on crop yields.	712
Microcoulometric gas chromatography of pesticides.	718
Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion.	743
Insecticide residues in milk and dairy products.	763
Field weathering of toxaphene and chlordane.	776
Cleanup processes for pesticide residue analysis.	798
Section C: Pesticide residue content.	810
Pesticide residues in commercial animal feeds.	811

Residues in vegetable crops following soil applications of insecticides.	822
Metals, other elements, and residues in foods.	831
Residues in vegetable crops following soil applications of insecticides.	851
The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides.	931
Pesticide effects in soils on nitrification and plant growth.	976
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041

# CHLORINATED HYDROCARBONS

The selective control of simulum larvae by particulate insecticides and its significance in river management.	2
Biology and control of native and introduced forest insects in the Nearctic Zone.	6
How to control bed bugs.	34
Controlling wasps.	35
Controlling the Japanese beetle.	36
The old house borer in Eastern States.	38
Early season insects no problem for B. A. Jordan.	39
Resistance to organochlorine insecticides in the tuber flea beetle, <i>Epitrix tuberis</i> Gent. (Coleoptera: Chrysomelidae), in British Columbia.	44
Insecticidal operations against chironomid midges along the Blue Nile.	56
Cockroach control - past, present and future.	61
Practical importance of resistance to insecticides in <i>Anopheles</i> .	72
The affect of insecticides on insects. In: Eichler, W., ed., Handbook of insecticide knowledge. SB951.E4.	93
Specificity in insecticides.	103
Seed-corn maggot resistance to aldrin in Illinois.	105
The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, <i>Musca domestica</i> L.	108
Toxicology and physiology of DDT resistance in the German cockroach.	117
Insects and related pests of house plants; how to control them.	128
Persistence of resistant populations after the relaxation of the selection pressure.	133
Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases.	138
Biological interaction between plasticizers and insecticides.	142
The biology and control of the <i>Ceanothus</i> stem-gall moth, <i>Periploca ceanothiella</i> (Cosens).	147
The leatherjacket risk grows.	148
Southern tree chapter briefed on borer control.	158

The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions.	161
Resistance to insecticides of three strains of <i>Musca domestica</i> L. from Brisbane, Queensland.	166
<i>Anopheles moucheti</i> in Cameroon.	168
The determination of the insecticidal activity of an 8 year old sample of DDT by biological method.	174
New strategy against the codling moth.	177
On the use of <i>Bacillus thuringiensis</i> -insecticide combinations to control insect pests.	184
Inheritance of DDT-RESISTANCE in <i>Musca domestica</i> nebuld Fabr.	187
Changes in insecticide sensitivity in the bean weevil <i>Acanthoscelides obtectus</i> Say, brought about by induced pigment formation.	192
Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths.	195
The susceptibility to insecticides of <i>Cydia pomonella</i> (Linnaeus) (Lepidoptera: Tortricidae) from Queensland.	196
Insecticide susceptibilities of <i>Phlebotomus papatasi</i> (Scopoli) from Egypt and the Sudan.	201
Michigan's priority war on mosquitoes.	204
Effect of temperature and humidity on the susceptibility of bedbugs to insecticides.	215
Some physiological effects of sublethal doses of DDT on flour beetles.	219
Variability in insecticide tolerance of eighteen honey-bee colonies.	221
Insecticide-cytoplasmic interactions in insects and vertebrates.	224
Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet ( <i>Chaetocnema tibialis</i> ).	226
Fewer pesticides - More control.	227
European pine shoot moth.	228
An autoradiographic study of invertebrate uptake of DDT-CL36.	232
On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants.	246
DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides.	254
Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and <i>Culex tarsalis</i> .	261
Review of classical malaria control measures.	271
Practical importance of insecticide resistance for malaria eradication in tropical Africa.	273
Importance of pesticides in preventive medicine.	280



# SUBJECT INDEX

## CHLORINATED HYDROCARBONS

Malaria and victory in Vietnam.	288
Technical problems of malaria eradication in Africa.	289
Entomological factors in persisting transmission of malaria in eradication programs.	290
Science and sense. As presented to the Weed Society of America, February 8, 1966.	316
Low temperature sprays for Dutch elm disease control.	323
Tomato yellow top.	328
Some pests of ornamental plants in Madras.	339
DDT and the farmer.	343
Double your cotton yield by spraying.	346
Control of the castor shoot and capsule borer, <i>Dichocrocis punctiferalis</i> Guen.	347
Resistance to organochlorine insecticides in the tuber flea beetle, <i>Epithrix tuberis</i> Gent (Coleoptera: Chrysomelidae), in British Columbia.	349
Forest entomology.	353
Insect pests of pulse crops.	355
Chemical control of the tea tortrix ( <i>Homona coffearia</i> Nietner).	384
Biology and control of leopard moth on pear trees in the United Arab Republic.	393
Control of grass grub and porina.	395
Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control.	398
Alternatives to DDT for the control of the pea moth on dry harvesting peas.	403
Cabbage looper control in Florida - a cooperative program.	404
Experiments on the insecticidal control of <i>Oxyanthes fuscomaculatus</i> Walker (Lepidoptera: Hepialidae).	412
Those hungry gypsies (Photo story).	423
Status and control of the corn stem weevil in the Florida Everglades.	439
Developments in insecticide control of the rice stem borer in Japan.	445
Maryland arborists discuss insect control.	458
The oriental fruit moth and its control.	463
The codling moth and its control.	464
Note on the control of gall-fly ( <i>Asphondylia sesami</i> Felt.) on sesame.	475
Rice leafhoppers.	477
Fifty years of research on the pink bollworm in the United States.	479
Controlling peach yellows in a peach breeding program.	480
The principle insect pests of beets and the means of their control in turkey.	482

Countering the castor semi-looper.	483
Essay on insecticidal treatments on the apple fruit fly, <i>Rhagoletis pomonella</i> (Walsh) in southwest Quebec.	484
Navy bean pests.	488
Morphological-biological report of the cabbage maggot <i>Hylemia brassicae</i> (Bch.) and experiments in chemical control.	493
Compatibility studies on <i>Bacillus thuringiensis</i> Berliner with chlorinated hydrocarbons.	495
Recent developments in and future prospects for the chemical control of the rice stem borer in India.	497
Chemical control of <i>Drosicha mangiferae</i> (Green), a serious pest of Citrus spp. in Madhya Pradesh.	510
Some ecological observations and results of the control of <i>Argyrocthia fundella</i> F. R.	516
Don't take lightly these brinjal borers.	518
Bark beetles.	539
The use of organochlorine insecticides and possible alternatives against leatherjackets.	541
Control of earthworm.	573
Seed dressings and game birds.	585
Protein-deficient diet and DDT toxicity.	587
The effect of DDT on reproduction in mice.	598
The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia.	599
Residual insecticides for use against tsetse flies in Rhodesia.	617
Termite control measures in building construction.	624
Control of insecticide residues in produce.	626
Saving stored rice from attacks of insect pests.	628
The significance of DDT in household and structural pest control - 1969.	635
Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada.	642
Eggs and chlorinated hydrocarbons.	645
Anaerobic degradation of selected chlorinated hydrocarbon pesticides.	650
Environmental contamination problems.	654
Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides.	655
Accumulation of chlorinated hydrocarbon pesticides by microorganisms in soil. (Abstract).	657
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	659
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	660

On the distribution of pest control agents.	662
Effects of pesticides on wildlife.	664
DDT: Criticism, curbs are on the upswing.	665
The behavior of DDT and Zectran on a forest soil.	666
Pesticides: Transatlantic movements in the Northeast trades.	667
Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.	668
Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.	670
Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment: symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed.	672
Water pesticides. 2.	674
Interaction of pesticides with natural organic material.	676
Corroborative study of certain chlorinated organic pesticides in dairy products.	685
Persistent pesticides.	688
Pesticide residues in food.	689
Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon.	691
DDT. Sublethal effects on brook trout nervous system.	693
University of Wisconsin scientists discuss insecticides and pollution.	695
No serious problem with pesticide residues.	696
More about the pesticide residue problem.	697
Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content.	700
Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food.	702
Insecticides in human fat in New Zealand.	703
DDT in fats on Antarctic animals.	704
Insecticides in human fat in New Zealand.	705
DDT problem at a glance.	706
Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods.	708
In vitro degradation of DDT by intestinal contents of Atlantic salmon ( <i>Salmo salar</i> ).	711
Microcoulometric gas chromatography of pesticides.	718
Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas.	722
Chlorinated insecticides in the body fat of people in the United States.	723

- Chlorinated insecticides in the body fat of people in the United States. 724
- An epidemiologic application of the study of DDE levels in whole blood. 726
- Co-distillation clean-up for DDT residues estimation. 729
- Persistence of DDT in crayfish in a natural environment. 730
- Some remarks on plant protection preparation-tolerances. 733
- DDT residues and metabolites in Canadian Atlantic coast fish. 734
- Pesticide residue in freshwater fish oils and meals. 735
- Pesticide residues in the ecosystem. 738
- Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 744
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769
- Pesticide residues in a marine population of double-crested cormorants. 778
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- Pesticides: Present levels in food and possible sources of contamination. 785
- Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786
- Chlorinated hydrocarbons as residues in foods. 792
- Commercial aspects of pesticide residues in foodstuff. 793
- Determination of DOT and related substances in human fat. 795
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796
- Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802
- DDT. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 812
- DDT. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 813
- Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820
- Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 821
- DDT residues absorbed from organic detritus by fiddler crabs. 823
- DDT residues absorbed from organic detritus by fiddler crabs. 824
- Note on improved extraction for chlorinated pesticide residues in oysters. 833
- Note on improved extraction for chlorinated pesticide residues in oysters. 834
- Rapid screening method for DDT in milk with gas chromatography. 838
- Rapid screening method for DDT in milk with gas chromatography. 839
- Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840
- Estimation of chlorinated pesticide residues in animal and vegetable oils. 842
- DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843
- DDT residues in Adelie penquins and a crabeater seal from Antarctica. 844
- Problems in monitoring DDT and its metabolites in the environment. 847
- Secretion of DDT by lactating cows fed thyroprotein. 853
- Residues of DDT and its derivatives in the fat tissues of some market animals. 854
- Pesticide residues - USDA'S position. 860
- Pesticides in people. Storage of DDT in the people of Israel. 866
- Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs. 869
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871
- DDT reduces photosynthesis by marine phytoplankton. 878
- DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880
- Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888
- Search for new insecticides. 890
- Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats. 900
- The early effects of low DDT doses on the nervous system in animal experiments. 901
- Response of robins to DDT and methoxychlor. 919
- Chemical vs environmental changes. Their effects on wildlife. 921
- An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells. 925
- Estrogenic action of DDT and its analogs. (Abstract). 928
- Interaction of DDT with the components of lobster nerve membrane conductance. 935
- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- Dynamics of organochlorine insecticides in vertebrates and ecosystems. 943
- Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium...American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. robert J. Gould, ed. 949
- Noteworthy poisons which are pesticides. 953
- Combined action of DDT with chlorophos and of thiophos with chlorophos. 954
- Respiratory exposure of dairy animals to pesticides. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. Gould, ed. 960
- Toxicity of DDT and related compounds to certain lepidopteran cotton insects. 961
- The effects of treatments against *Ostrinia (Pyrausta) nubilalis* Hb. on the production of hybrid corn. 978
- DDT - type compounds: Separation and identification by a system combining thin layer chromatography, gas chromatography, and infrared spectroscopy. 983
- The optimum size for insecticide spray droplets. 1003
- Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils. 1012
- Photochemical decomposition of DDT by a free-radical mechanism. 1016
- Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026
- Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027
- Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029
- CHLORINE
- An autoradiographic study of invertebrate uptake of DDT-CL36. 232
- Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312
- The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 364
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates col-lusor* (Townsend) in the laboratory. 612



**CHLORINE ISOTOPES**

- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, *Hippelates collusor*. 613
- HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle. 637
- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655
- Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690
- Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747
- Pesticide residues. 873
- Chlorine analysis by the schoniger oxygen flask. 987
- Report on analytical methods for pesticide formulations. 1001
- CHLORINE ISOTOPES**  
The accumulation of <sup>36</sup>Cl ring-labeled DDT in a freshwater marsh. 663
- CHLOROBENZILATE**  
Metals, other elements, and residues in foods. 831
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- CHLOROHYDROCARBONS**  
Mechanisms of insect resistance to the chlorohydrocarbon insecticides. 51
- CHLOROPHYLL A**  
Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- CHLOROPHYLL B**  
Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- CHLOROPHYLLS**  
DDT resistance in barley, *Hordeum vulgare*- 1. Induced mutants for resistance. 319
- CHLOROPIDAE**  
Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the Eye gnat, *Hippelates collusor*. 24
- Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides. 213
- Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 476
- CHLOROPLASTS**  
Effect of DDT on photosynthesis in certain varieties of barley. 975
- CHLOROSIS (PLANTS)**  
Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- CHOLINE**  
Studies of choline acetylase inhibition by DDA (dichlorodiphenylacetic acid) and its possible relationship to DDT toxicity. 889
- CHOLINERGIC SYSTEM**  
The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931
- CHOLINESTERASES**  
Performance of sevin against grape berry moth. 524

- Studies of choline acetylase inhibition by DDA (dichlorodiphenylacetic acid) and its possible relationship to DDT toxicity. 889
- CHORISTONEURA**  
Fluctuations in aquatic insect populations associated with aerial applications of DDT to Northern Maine forests. 11
- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- The use of balsam fir shoot elongation for timing spruce budworm aerial spray programs in the lake states. 551
- Aerial forest spraying against spruce budworm-A problem of mutual interest in Canada and the United States. 566
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656
- CHORISTONEURA FUMIFERANA**  
Mites collected from Douglas-fir foliage in Montana. 7
- Control of a spruce budworm outbreak in Quebec through aerial spraying operations. 356
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770
- CHORISTONEURA MURINANA**  
Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests. 64
- CHROMATOGRAPHY**  
Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119
- Biological interaction between plasticizers and insecticides. 142
- Studies on the metabolism of DDT in the desert locust by paper chromatography. 216
- Pesticide-induced enzyme breakdown of steroids in birds. 583
- Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642
- Techniques and preliminary data of the movement of DDT and Zectran through a forest soil. 646
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 660
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670
- Corroborative study of certain chlorinated organic pesticides in dairy products. 685

- Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues. 699
- Insecticides in human fat in New Zealand. 703
- DDT in fats on Antarctic animals. 704
- Gas chromatography with microcoulometric detection for pesticide residue analysis. 709
- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography. 714
- Microcoulometric gas chromatography of pesticides. 718
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- Chlorinated insecticides in the body fat of people in the United States. 723
- Chlorinated insecticides in the body fat of people in the United States. 724
- Persistence of DDT in crayfish in a natural environment. 730
- Pesticide testing in dairy factory laboratories. 731
- DDT residues and metabolites in Canadian Atlantic coast fish. 734
- Pesticide residue in freshwater fish oils and meals. 735
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 755
- Insecticide residues in milk and dairy products. 763
- Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 768
- Separation and measurement of perthane, DDD(TDE), and DDT in leafy vegetables by electron capture gas chromatography. 774
- Metabolites:reductive dechlorination of DDT to DDD and isomeric transformation of o,p, DDT to p,p,-DDT in vivo. 775
- Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs. 777
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782
- Determination of DOT and related substances in human fat. 795
- Cleanup processes for pesticide residue analysis. 798
- Determination of chlorinated pesticide residues in fat by electron capture gas chromatography. 799
- Metabolism of ddt and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802
- Report on chlorinated insecticides and miticides. 807

- One-step cleanup of chlorinated insecticide residues by chromatography on carbon-celite mixtures. 814
- Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816
- Residue analysis in the dairy industry. in: Zwig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. I. principles, methods, and general application. 817
- Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820
- Detection and estimation of chlorinated pesticides in eggs. 826
- Tissue and fat preparation for pesticide determination by gas chromatography. 827
- The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830
- Quantitative paper chromatography of chlorinated insecticides in soils. 837
- Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840
- Separation, identification, and measurement of DDT and its metabolites. 841
- Estimation of chlorinated pesticide residues in animal and vegetable oils. 842
- DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843
- DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844
- Pesticides in people. Storage of DDT in the people of Israel. 866
- Determination of chlorinated pesticide residues by electroncapture gas chromatography. 867
- DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880
- Pharmacodynamic study of DDT in cockerels. 905
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 914
- The apparent binding of dDT to tissue components. 915
- Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants. 972
- Recommended analytical methods for pesticides. 17. 2,4-D, 2, 4-D salts and 2,4-d formulations. 18. DDT dusts and waterdispersible powders. 981
- DDT - type compounds: Separation and identification by a system combining thin layer chromatography, gas chromatography, and infrared spectroscopy. 983
- The chromatographic separation of pesticides on silicic acid. 985
- Report on analytical methods for pesticide formulations. 989
- Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector. 990
- Microcoulometric gas chromatography of pesticides. 992
- Gas chromatography for the analysis of pesticides using Aerograph electron capture detector. 994
- Chromatographic separation of malathion prior to infrared spectrophotometric estimation. 995
- Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996
- Gas chromatography using an electron absorption detector. 999
- Selective detection and identification of pesticide residues. 1004
- Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006
- Separation and measurement of perthane, DDD (TDE) and DDT in leafy vegetables by electron-capture gas chromatography. 1009
- Simultaneous quantitative determination of lindane and DDT gas chromatography. 1010
- The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography. 1011
- Ascending paper chromatography: A way to do it. 1015
- Photochemical decomposition of DDT by a free-radical mechanism. 1016
- Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- DDD as a decomposition product of DDT. 1019
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029
- Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035
- Chlorinated insecticides and miticides Electron capture gas chromatography for determination of DDT in butter and some vegetable oils. 1039
- Thin-layer chromatography for chlorinated pesticide residue analysis. 1040
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- Gas chromatographic columns for optimum recovery of chlorinated pesticides. 1045
- CHROMOSOMES**
- Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*. 244
- Insecticide-resistance in *Culex pipiens fatigans*. 245
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257
- Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261
- Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann. 265
- Organising an eradication programme for *Aedes aegypti* in the USA. 308
- CHRYSEMELIDAE**
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (Coleoptera: Chrysomelidae), in British Columbia. 44
- Low volume aerial spraying. 317
- Some pests of ornamental plants in Madras. 339
- CICADELLIDAE**
- Double your cotton yield by spraying. 346
- Chemicals that take care of the mango hopper. 354
- Rice leafhoppers. 477
- Controlling peach yellows in a peach breeding program. 480
- CICADIDAE**
- Controlling wasps. 35
- CIMEX HEMIPTERUS**
- Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215
- CIMEX LECTULARIUS**
- How to control bed bugs. 34
- Prolonged resistance in the house fly and bed bug. 154
- CIRCULIFER TENELLUS**
- Low volume aerial spraying. 317
- CITRUS**
- Control of *Hippelates* gnats with soil treatments using organochlorine insecticides. 291
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 345
- Interference with the biological control of cottony-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350
- Chemical control of *Drosicha mangiferae* (Green), a serious pest of *Citrus* spp. in Madhya Pradesh. 510
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 549
- CLAY MINERALS**
- Adsorption of some pesticides on soils, clay minerals and humic acid. 791
- CLAY SOILS**
- Adsorption of some pesticides on soils, clay minerals and humic acid. 791
- The effect of the association of organic material with clays on parathion and DDT adsorption. 1028
- CLEANUP**
- The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830



# SUBJECT INDEX

## CLIMATE

### CLIMATE

Effect of climatic factors on the susceptibility of insects to insecticides.

514

### COBALT

New strategy against the codling moth.

177

### COCHLIOMYIA HOMINIVORAX

Entomologists exchange '59 research results.

305

### COFFEE

Giant coffee looper, *Ascotis selenaria* reciprocaria, and its control.

540

### COLE

Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia.

429

### COLEOMEGILLA MACULATA

DDT-METABOLISM and excretion in *Coleomegilla maculata* De Geer.

885

Ecological and nutritional studies on *Coleomegilla maculata* DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials.

886

### COLEOPTERA

Effects of aldrin and DDT on soil fauna and arable land.

1

A summary of forest and shade tree insect-disease conditions for Maine 1967.

4

The old house borer in Eastern States.

38

The damage brought about by *Phloeotribus*.

474

### COLLOIDS

Retention and volatilization of lindane and DDT in presence of organic colloids isolated from soils and leonardite.

828

### COLOR

Some new mutants and linkage groups of the house fly.

251

Genetic factor controlling colour and its association with DDT sensitivity in the cabbage looper.

256

A genetic factor controlling color and its association with dDT sensitivity in the cabbage looper.

258

### COLORIMETRY

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.

668

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.

670

Microcoulometric gas chromatography of pesticides.

718

Residue study shows no pesticide hazard in Pacific coast seafood.

728

Rapid colorimetric determination of DDT in milk.

756

Report on analytical methods for pesticide formulations.

989

Rapid colorimetric determination of DOT in milk and butter.

1033

### CONNECTICUT

Prior local approval is key to successful spray programs.

332

Effects of an aerial DDT spray on aquatic insects in Connecticut.

425

Effects of an aerial DDT spray on aquatic insects in Connecticut.

426

### CONSUMERS

Insecticide-resistant fishes: A potential hazard to consumers.

907

### CONTAINERS

Saving stored rice from attacks of insect pests.

628

Water-base insecticides.

1036

### COPPER CARBONATE

Diseases and parasites of the rose.

322

### COPPER SULFATE

Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation.

192

Control of the tadpole shrimp, *Triops longicaudatus* in California rice fields.

407

Control of earthworm.

573

Pesticide exports from U.S. increase by 22 per cent in 1962.

1057

### CORN

Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn.

21

Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa.

230

Control of the corn earworm with American Cyanamid 18133.

357

European corn borer control in potatoes.

362

European corn borer control in peppers.

368

The performance of DDT for corn earworm control over an eleven year period.

374

Adjuvants in sprays for insect control on sweet corn.

414

DDT spray formulations and dosages for control of corn stem weevil, *Hyperodes humilis*.

415

Experiments for the control of sap beetles in sweet corn grown for processing.

417

Effectiveness of insecticides against the corn earworm in sorghum heads.

421

Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed.

424

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.

428

Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967.

434

Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967.

435

Status and control of the corn stem weevil in the Florida Everglades.

439

Effect of mite control on corn yield.

448

Control of the corn earworm on sweet corn in Eastern Nebraska.

519

Insecticide sprays for control of insects on various vegetable crops.

543

Treated bags for control of the corn earworm and fall armyworm.

552

Factors involved in differential susceptibility of corn earworm larvae to DDT.

554

Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk.

557

The effect of plant type upon corn earworm control in sweet corn.

568

Distribution of insecticides sprayed by airplane on an irrigated corn plot.

764

The effects of treatments against *Ostrinia* (*Pyrausta*) *nubilalis* Hb. on the production of hybrid corn.

978

### CORNSTALK BORER

Control of lesser cornstalk borer attacking groundnuts.

410

Insecticide studies on the maize stalk borer, *Busseola fusca* (Fuller) in E. Africa.

536

### COSTELYTRA ZEALANDICA

Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva.

134

Control of grass grub and porina.

395

Insecticides and pest control.

494

### COTTON

Utilization of DDT resistance as a means of investigating the possible existence of host-specific strains of the bollworm, *Heliothis zea*.

52

Control of the boll weevil on cotton with ultra-low-volume (undiluted) technical malathion.

68

The determination of DDT deposited on cotton plants in an airspray trial in Tanzania.

331

Low-volume aerial spraying of several insecticides for cotton-insect control.

340

Control of the white mite on cotton with various powder and dust products.

342

Double your cotton yield by spraying.

346

Laboratory tests with toxaphene, DDT, and Sevin against *Lygus hesperus* on cotton.

359

The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils.

364

Growth and development of cotton as affected by toxaphene, DDT, methyl parathion, and calcium arsenate.

366

Field experiments against several late-season cotton insects in 1959.

380

Control of several cotton insects in field experiments in 1960.

381

Field experiments against several late-season cotton insects in 1959.

386

Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960.

387

Field experiments on control of overwintered boll weevils.

397

Chemagro offers 'practical' program to selectively control pests of cotton. 400

Laboratory tests of insecticides against the salt-marsh caterpillar. 413

Control of yellow tea mite, *Hemitarsonemus latus* (Banks) with DDT on cotton in Uganda. 436

The control of yellow tea mite, *Hemitarsonemus latus* (Banks), with DDT on cotton in Uganda. 437

Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 447

Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton. 449

Field tests with insecticides for pink bollworm control in 1958. 461

A preventive boll weevil control program applied to a tensquare-mile area within a treated county. 471

Control of bollworm adults on cotton with insecticides. 473

Fifty years of research on the pink bollworm in the United States. 479

Effects of various water volumes on the effectiveness of methyl parathion-DDT, in controlling the cotton boll weevil, *Anthonomus grandis*. 481

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485

Control of several early-season cotton pests with insecticides. 486

Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489

Cotton fiber quality as related to some cotton insect control programs and time of fruit setting. 492

Stem applications of azodrin for control of the cotton fleahopper. 501

Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 529

The cotton leaf perforator and its control in Arizona. 531

Control of boll weevils resistant to chlorinated hydrocarbons. 535

Control of the beet armyworm on cotton in Arizona. 538

Seasonal history and response to insecticides of *Heliothis* species on cotton. 559

Incidence of pink bollworm resistance to DDT. 561

Cotton pests exhibit resistance to DDT. 563

Salt-marsh caterpillar control on cotton in Arizona. 567

Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741

Pesticide residues. 845

Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936

Toxicity of DDT and related compounds to certain lepidopteran cotton insects. 961

Some effects of toxaphene-DDT and calcium arsenate on growth and development of cotton. 964

The selection of a solvent for use with low volume aerial spraying of cotton plants. 969

A good year for pesticide sales. 1055

**COTTON GINNING**  
Fifty years of research on the pink bollworm in the United States. 479

**COTTONSEED**  
Effect of storage on cottonseed and cottonseed products. 621

**COUMAPHOS**  
Studies on resistance to malathion in the mosquito, *Culex tarsalis*. 75

Entomologists exchange '59 research results. 305

Getting rid of camel mange. 607

Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743

**CRABAPPLES**  
Biology and control of the apple seed chalcid in North Carolina. 530

**CRABS**  
DDT residues absorbed from organic detritus by fiddler crabs. 823

DDT residues absorbed from organic detritus by fiddler crabs. 824

**CRANBERRIES**  
Control of *Sparganothis sulfurana* on cranberry. 527

**CRAYFISH**  
Some chemical characteristics of a DDT-induced neuroactive substance from cockroaches and crayfish. 107

Persistence of DDT in crayfish in a natural environment. 730

Some chemical characteristics of a DDT-INDUCED neuroactive substance from cockroaches and crayfish. 1002

**CREOSOTE**  
Changes in usage of plant protection preparations during the last fifteen years. 310

**CROP LOSSES**  
Tomato yellow top. 328

Insect pests of pulse crops. 355

The principle insect pests of beets and the means of their control in turkey. 482

The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

**CROP ROTATION**  
Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690

**CROP VARIETIES**  
The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

The effect of plant type upon corn earworm control in sweet corn. 568

Some biochemical investigations into susceptibility of barley varieties to DDT. 977

The effects of treatments against *Ostrinia* (*Pyrausta*) *nubilalis* Hb. on the production of hybrid corn. 978

**CROP YIELDS**  
Early season insects no problem for B. A. Jordan. 39

Double your cotton yield by spraying. 346

Effect of mite control on corn yield. 448

Persistence of certain pesticides in the soil and their effect on crop yields. 712

The effects of treatments against *Ostrinia* (*Pyrausta*) *nubilalis* Hb. on the production of hybrid corn. 978

**CROPS**  
Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569

Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655

Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues. 699

Gas chromatography with microcoulometric detection for pesticide residue analysis. 709

Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840

**CRUCIFERAE**  
Evaluation of chemical and microbial materials for the control of the cabbage looper. 408

**CRYPTOLESTES FERRUGINEUS**  
Temperature effects on the toxicity of five insecticides against five species of stored-product insects. 125

**CUCUMBERS**  
Some effects of DDT, dieldrin, dimethoate and fenthion on growth of cucumbers. 966

Applications of polarography for the detection and determination of pesticides and their residues. 998

**CULEX**  
Studies on resistance to malathion in the mosquito, *Culex tarsalis*. 75

Susceptibility of mosquitoes to silica gel insecticides. 164

The susceptibility of *Culex pipiens molestus* forskal in Israel to several insecticides in 1958-1960 and in 1965. 269

**CULEX PIPIENS**  
Toxicity, pick-up and metabolism of p,p'-DDT and related compounds in *Culex pipiens fatigans* and *Aedes aegypti*. 130

Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes. 173



# SUBJECT INDEX

## CULEX PIPIENS MOLESTUS

Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257

Effects of sublethal doses of DDT on the reproduction and susceptibility of *Culex pipiens* L. 303

## CULEX PIPIENS MOLESTUS

Insecticide-resistance in *Culex pipiens fatigans*. 245

## CULEX PIPIENS PIPIENS

DDT-RESISTANCE in two strains of *Culex pipiens pipiens* Linnaeus from New Jersey. 111

Insecticide-resistance in *Culex pipiens fatigans*. 245

Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 295

## CULEX PIPIENS QUINQUEFASCIATUS

Metabolism of insecticides by *Culex pipiens quinquefasciatus*. i. in vivo metabolism of DDT by larvae. 114

The effect of larval density on mortality of *Culex pipiens fatigans* due to DDT and dieldrin. 118

Dieldrin and DDT resistance of *Culex pipiens fatigans* in Thailand. 241

Insecticide-resistance in *Culex pipiens fatigans*. 245

Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250

Studies on the mechanism of DDT-RESISTANCE in *Culex pipiens fatigans*. 253

Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann. 265

Inheritance of dDT resistance in *Culex pipiens fatigans* Wiedemann. 266

## CULEX TARSA LIS

Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261

## CULICIDAE

New insecticides for control of salt-marsh mosquitoes. 10

Solubility of carbon-14 DDT in water. 27

Susceptibility of arctic mosquitoes to DDT and malathion. 73

Hercules AC-5722 as a residual spray for adult mosquitoes. 88

Dieldrin-resistance in a strain of *Aedes aegypti* (L.) from Puerto Rico. 97

Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99

Resistance to DDT isomers in *Culex pipiens fatigans*. 131

Relation of DDT-IRRITATION threshold to knockdown of three species of anopheline mosquitoes. 155

Low volume spraying by air to control mosquito larvae in California. 170

Michigan's priority war on mosquitoes. 204

Relative susceptibility of salt-marsh mosquitoes from Georgia and Florida to insecticides. 233

Toxicological action of DDT on three species of mosquito larvae. 234

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235

Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240

The susceptibility of various species of mosquitoes to DDT and dieldrin in Thailand. 242

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277

Eradication of malaria and mosquito control in Italy. 279

Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 476

Problems in WHO on pesticide residues. in: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna 12-16 April 1965. sB953.P32. 850

## CULICOIDES

The effectiveness of chemically treated screens in killing annoying punkies, *Culicoides* obsoletus. 285

## CULTURAL CONTROL (INSECTS)

Controlling the Japanese beetle. 36

The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147

Raspberry moth. 468

Cutworms and armyworms. 478

Fifty years of research on the pink bollworm in the United States. 479

Countering the castor semi-looper. 483

## CULTURE MEDIA

Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713

## CURCULIONIDAE

The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161

Setting up a method for control of clover weevils. 352

## CUTICLE

Toxicology and physiology of DDT resistance in the German cockroach. 117

Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176

## CYANIDES

Destruction of wasps. 40

## CYCLIC COMPOUNDS

3,6,9,10-tetrahalogenphenanthrene. A new cyclarylation reaction of DDT derivatives. 1032

## CYCLODIENE

Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259

Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365

## CYNODON DACTYLON

Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175

## CYTOPLASM

Insecticide-cytoplasmic interactions in insects and vertebrates. 224

## C14

Absorption and metabolism of C14-labeled DDT by DDTsusceptible and DDT-RESISTANT pink bollworm adults. 59

## D, 2,4-

Herbicide-insecticide formulations for control of the American dog tick. 609

## DAIRY CATTLE

DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT pills and DDTsuperphosphate. (abstract). 760

Effect of thyroprotein and a low-energy ration on removal of DDT from lactating dairy cows. 805

Investigation to determine the respective residue amounts of DDT and its analogues in the milk and back fat of selected dairy animals. 819

Insecticide residues in milk:DDT residues in milk from dairy cows fed low levels of DDT in their daily rations. 879

## DAIRY INDUSTRY

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 817

## DAIRY PRODUCTS

Corroborative study of certain chlorinated organic pesticides in dairy products. 685

Pesticide residues in food. 689

Pesticide testing in dairy factory laboratories. 731

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 817

Metals, other elements, and residues in foods. 831

Pesticide residues in dairy produce. 856

## DALAPON

Cuticula of leaves and the residue problem. 788

## DDA

Studies of choline acetylase inhibition by DDA (dichlorodiphenylacetic acid) and its possible relationship to DDT toxicity. 889

- Chlorophenothane (DDT) and glutamine in pentylenetetrazule (Cardiazole) convulsions in the rat. 913
- The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957
- DDE**
- Internal DDE production by normal and DDT-resistant larvae of *Aedes aegypti*. 66
- Insecticides in human fat in New Zealand. 703
- Retention of DDT and DDE by the bovine. 749
- Collaborative study of certain chlorinated organic pesticides in dairy products. 809
- Tissue and fat preparation for pesticide determination by gas chromatography. 827
- Organochlorine pesticides in Antarctica. 857
- Chlorophenothane (DDT) and glutamine in pentylenetetrazule (Cardiazole) convulsions in the rat. 913
- The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957
- Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides. 1034
- Thin-layer chromatography for chlorinated pesticide residue Thin-layer chromatography for chlorinated pesticide residue analysis. 1040
- analysis. 1040
- Infrared spectra of pesticides. 1042
- Infrared spectra of pesticides. 1042
- DDT**
- The effects of various anesthetics on the action of DDT on *Anopheles* larvae. 302
- DDT-DEHYDROCHLORINASE**
- DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 145
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- DECANOIC ACID**
- An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, *Scolytus multistriatus*. 955
- DECOMPOSITION**
- Thermal decomposition of DDT by some soil constituents. 982
- DEGRADATION**
- Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650
- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 755
- Separation, identification, and measurement of DDT and its metabolites. 841
- Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants. 972
- Photochemical decomposition of DDT by a free-radical mechanism. 1016
- Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- DEHYDROCHLORINASE**
- DDT-DEHYDROCHLORINASE in *Aedes aegypti*. 1008
- DEHYDROCHLORINATION**
- Dehydrochlorination and DDT-RESISTANCE in *Aedes aegypti*. 26
- DEHYDROGENASES**
- Intracellular distribution of TPN-ISOCRITIC dehydrogenase activity in susceptible and insecticide-resistant strains of *Aedes aegypti*. 171
- DELIA**
- Control of onion fly, *Delia antiqua*, with seed dressings. 372
- DEMAND**
- Carryover stocks of pesticides increased over 1960 level. 1054
- DEMETON**
- Influence of insecticide-fungicide spray programmes on growth of apple nursery trees. 324
- Biology and control of the apple seed chalcid in North Carolina. 530
- Development of double isotope derivative assays for measurement of pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna, 12-16 April 1965. SB953.P32. 701
- Some remarks on plant protection preparation-tolerances. 733
- Cuticula of leaves and the residue problem. 788
- Pesticide residues in foods in relation to human health. 904
- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931
- Effects of some insecticides on nitrogen fractions of Bartlett pear leaf tissue. 973
- DEMETON-METHYL**
- Collaborative studies on the analysis of pesticide residues. 806
- DEOXYRIBONUCLEIC ACID**
- Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896
- DERMACENTOR VARIABILIS**
- Herbicide-insecticide formulations for control of the American dog tick. 609
- DERMATOBIA**
- Biology and control of *Dermatobia hominis* (L. Jr.) in Honduras (Diptera: Cuterebridae). 13
- DETERIORATION**
- Formulation analysis: The effect of different storage treatments on the susceptibility, agglomeration and deterioration of surfactants of DDT water-dispersible powders. 1043
- DEUTERIUM**
- Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 46
- The synthesis of tertiary carbon deuterated DDT and DDT analogs. 993
- DEW**
- Effect of climatic factors on the susceptibility of insects to insecticides. 514
- DIAGNOSIS**
- Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026
- DIANTHUS**
- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396
- DIANTHUS CARYOPHYLLUS**
- The South African carnation roller moth *Epichoristodes acerbella* (Walk.) Diakonoff. 457
- DIARYLHALOETHANE-DEHYDROHALOGENASE**
- Specificity of diarylhaloethane-dehydrohalogenase of susceptible and DDT-RESISTANT house flies. 986
- DIATRAEA**
- Control of sugar cane borer with insecticides. 452
- DIATRAEA SACCHARALIS**
- Control of sugar cane borer with insecticides. 452
- DIAZINON**
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (Coleoptera: Chrysomelidae), in British Columbia. 44
- Causes of resistance to DOT in a diazinon-selected and a DDT-SELECTED strain of house flies. 82
- An analysis of house fly resistance to insecticides in California. 90
- Seed-corn maggot resistance to aldrin in Illinois. 105
- Stable fly tolerance to residues of DDT, dieldrin, malathion and diazinon. 129
- The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147
- Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166
- New strategy against the codling moth. 177
- Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215
- Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*). 226
- WARF anti-resistant: DDT selection and house fly crossresistance. 247
- Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259
- The susceptibility of *Culex pipiens molestus* forskal in Israel to several insecticides in 1958-1960 and in 1965. 269
- Insect control for garden vegetables. 311
- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- Diseases and parasites of the rose. 322
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent (Coleoptera: Chrysomelidae), in British Columbia. 349
- Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365



# SUBJECT INDEX

## DIBUTYL-P-CHLOROBENZENESULFONAMIDE, N,N

- Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*. 382
- Neodiprion taedae linearis: A sawfly pest of loblolly and shortleaf pines. 383
- Designing orchard experiments for european red mite control. 385
- Evaluation of insecticides for control of the tobacco thrips on peanuts. 409
- Laboratory tests of insecticides against the salt-marsh caterpillar. 413
- Experiments for the control of sap beetles in sweet corn grown for processing. 417
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424
- Evaluation of new materials for codling moth control in Washington. 431
- DDT resistant codling moths on pears in California. 455
- Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*. 456
- Chemical control of *Drosicha mangiferac* (Green), a serious pest of Citrus spp. in Madhya Pradesh. 510
- Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 512
- Biology and control of morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 513
- Control of *Sparganothis sulfurana* on cranberry. 527
- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548
- Salt-marsh caterpillar control on cotton in Arizona. 567
- Field studies of house fly resistance to organophosphorus insecticides. 604
- Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670
- Development of double isotope derivative assays for measurement of pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna, 12-16 April 1965. SB953.P32. 701
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. 764
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871

- On the toxicology of Pyrethrum to warm blooded animals. 1030
- DIBUTYL-P-CHLOROBENZENESULFONAMIDE, N,N**  
Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181
- DICAPTHON**  
Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489
- DICHLONE**  
Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple. 732
- Metals, other elements, and residues in foods. 831
- DICHLORO-2,2-BIS(P-ETHYLPHENYL)ETHANE, 1,1-**  
Evaluation of chemical and microbial materials for the control of the cabbage looper. 408
- An investigation of the oscillopolarography of DDT and certain analogs. 750
- Separation and measurement of perthane, DDD (TDE), and DDT in leafy vegetables by electron capture gas chromatography. 774
- Section C: Pesticide residue content. 810
- Separation and measurement of perthane, DDD (TDE) and DDT in leafy vegetables by electron-capture gas chromatography. 1009
- Thin-layer chromatography for chlorinated pesticide residue analysis. 1040
- Infrared spectra of pesticides. 1042
- DICHLORO-3-(4-CHLOROPHENYL)SALICYLANILIDE, 4'-5-**  
Evaluation in the greenhouse of a new insecticide for bollworm control. 454
- DICHLORVOS**  
Practical importance of resistance to insecticides in *Anopheles*. 72
- Field tests of dichlorvos, General Chemical 4072, Hooker Compound, and synergized dDT against *Musca domestica*. 156
- Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341
- Effectiveness of several insecticidal aerosols against the Japanese beetle. 632
- Laboratory evaluation of insecticides against the cigarette beetle. 894
- DICHOCROCIS PUNCTIFERALIS**  
Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347
- DICLADOCERUS**  
Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- DICOFOL**  
A new DDT-METABOLIZING enzyme in the German cockroach. 30
- Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases. 138
- The metabolism of C-14 labeled DDT in larvae, pupae, and adults of *Drosophila melanogaster*. 162
- The effects of DDT and sublethal doses of dicofol on reproduction of the two-spotted spider mite. 188

- Effect of urea on control of some apple insects with certain insecticides. 432
- Effect of mite control on corn yield. 448
- An investigation of the oscillopolarography of DDT and certain analogs. 750
- Identification of pesticide residues in extracts of fruit, vegetables and animal fats III. Metabolites of chlorinated hydrocarbon pesticides in animal depot-fat. 797
- Drift sampling method told CAAA. 801
- Section C: Pesticide residue content. 810
- Metals, other elements, and residues in foods. 831
- Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937
- DDT and related compounds in dog food and CSMA media used in insect rearing. 945
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- DIEBACK**  
Low temperature sprays for Dutch elm disease control. 323
- Factors affecting the appearance of holly oaks in Southern California. 367
- DIEBACK (ULMUS)**  
Dormant sprays for the control of dutch elm disease. 325
- An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, *Scolytus multistriatus*. 955
- DIELDRIN**  
Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minuthus* Oliv. 18
- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the Eye gnat, *Hippelates collusor*. 24
- Toxicological studies on a beetle, *Alphitobius laevigatus* (F.). V. Joint actions of some pairs of like and unlike toxicants. 25
- The old house borer in Eastern States. 38
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (Coleoptera: Chrysomelidae), in British Columbia. 44
- Resistance to Telodrin in the German cockroach, *Blattella germanica*. 70
- Practical importance of resistance to insecticides in *Anopheles*. 72
- Studies on resistance to malathion in the mosquito, *Culex tarsalis*. 75
- Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78
- An analysis of house fly resistance to insecticides in California. 90
- Dieldrin-resistance in a strain of *Aedes aegypti* (L.) from Puerto Rico. 97
- Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99

Seed-corn maggot resistance to aldrin in Illinois. 105

The susceptibility to insecticides of populations of *Aedes aegypti* from Queensland, Australia. 113

Dieldrin-resistant and DDT-RESISTANT strains of the spotted root maggot apparently restricted to heterozygotes for resistance. 115

The effect of larval density on mortality of *Culex pipiens fatigans* due to DDT and dieldrin. 118

Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126

Stable fly tolerance to residues of DDT, dieldrin, malathion and diazinon. 129

Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139

Biological interaction between plasticizers and insecticides. 142

Southern tree chapter briefed on borer control. 158

The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161

Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166

*Anopheles moucheti* in Cameroon. 168

Intracellular distribution of TPN-ISOCRITIC dehydrogenase activity in susceptible and insecticide-resistant strains of *Aedes aegypti*. 171

Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182

Dieldrin and DDT: Effects on sparrow hawk eggshells and reproduction. 183

The sensitivity of *Musca domestica* nebulosa f. and *M. domestica vicina* macq. to DDT, BHC and dieldrin, as shown by dosage-mortality curves. 186

The toxicological action of three organophosphorus insecticides with three species of mosquito larvae. 200

Insecticide susceptibilities of *Phlebotomus papatasi* (Scopoli) from Egypt and the Sudan. 201

Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire. 203

Field tests for control of overwintered boll weevils. 209

Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides. 213

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215

Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers. 222

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235

Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240

Dieldrin and DDT resistance of *Culex pipiens fatigans* in Thailand. 241

The susceptibility of various species of mosquitoes to DDT and dieldrin in Thailand. 242

Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*. 244

Insecticide-resistance in *Culex pipiens fatigans*. 245

Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250

Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann. 265

The susceptibility of *Culex pipiens molestus* forskal in Israel to several insecticides in 1958-1960 and in 1965. 269

*Aedes aegypti* in the Western Pacific region. 272

Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273

Results of tests of sensitivity to insecticides of *Anopheles* adults in rumania. 275

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 278

Importance of pesticides in preventive medicine. 280

Summary of recent abstracts. VI. Plague. 283

The status of insecticide resistance in populations of *Culex pipiens fatigans* Wiedemann (Diptera: Culicidae) from Queensland. 284

Entomological factors in persisting transmission of malaria in eradication programs. 290

Control of *Hippelates* gnats with soil treatments using organochlorine insecticides. 291

Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 295

Susceptibility to insecticides of certain anophelines according to the time of catch and testing. 296

Susceptibility studies on *Anopheles culicifacies* with DDT and dieldrin in Gujarat State, India. 297

The influence of sublethal dosages of insecticides on the basal follicles of *Aedes aegypti* (L.). (abstract). 299

Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312

Costa Rican cacao insects: their role in cherelle wilt and effect on yield. 335

Insecticides as a factor in population fluctuations of mites on lucerne. 337

Resistance to organochlorine insecticides in the tuber flea beetle, *Epithrix tuberis* Gcnt (Coleoptera: Chrysomelidae), in British Columbia. 349

Control of the lesser peach tree borer in virginia. 358

*Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396

Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398

Problems in the control of mint insects. 401

Control of mint insects. 402

Laboratory studies of three-lined potato beetle and control with various insecticides. 446

Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton. 449

Control of sugar-beet moth, *Phthorimaea ocellatella*, Boyd. 451

Maryland arborists discuss insect control. 458

Controlling peach yellows in a peach breeding program. 480

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485

Control of several early-season cotton pests with insecticides. 486

Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 504

Control of the peach tree borer on young peach trees by preplant treatment with DDT, dieldrin, and endosulfan. 515

Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 522

Treated bags for control of the corn earworm and fall armyworm. 552

Control of army cutworms in alfalfa during 1959. 564

Experiments on control of the sugar-beet wireworm in southern California bean fields. 565

Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569

Effect of some pesticides on the adrenal glands in the rat. 580

Pesticide-induced enzyme breakdown of steroids in birds. 583

Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 584

Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues. 594

The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia. 599

Insect tormentors of livestock: IV. The mites. 600

Resistance to chlorinated hydrocarbon insecticides in the eye gnat, *Hippelates collusor*. 603

Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 612



# SUBJECT INDEX

## DIELDRIN

Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, *Hippelates collusor*. 613

Residual insecticides for use against tsetse flies in Rhodesia. 617

Termite control measures in building construction. 624

Saving stored rice from attacks of insect pests. 628

Some insecticidal trials for the protection of til seeds in storage. 629

Distribution of C14-DDT and C14-dieldrin in pregnant mice determined by whole-body autoradiography. 634

Pesticide monitoring programs. 639

Environmental pollution: Scientists go to court. 640

DDT: The critics attempt to ban its use in Wisconsin. 641

Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642

Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650

Collection and analysis of synthetic organic pesticides from surface and ground water. 652

Pesticides and man's environment. 653

Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655

Accumulation of chlorinated hydrocarbon pesticides by microorganisms in soil. (Abstract). 657

Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659

Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 660

On the distribution of pest control agents. 662

Pesticides: Transatlantic movements in the Northeast trades. 667

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668

Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670

Water pesticides. 2. 674

Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others. 677

Calls for ban on broad spectrum insecticides. 681

Britain imposes pesticide ban. 683

Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690

More about the pesticide residue problem. 697

Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content. 700

Development of double isotope derivative assays for measurement of pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna, 12-16 April 1965. SB953.P32. 701

Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food. 702

Accumulation of DDT and dieldrin by microorganisms. 710

Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713

Pesticide residues are not a problem. 717

Chlorinated insecticides in the body fat of people in the United States. 723

Chlorinated insecticides in the body fat of people in the United States. 724

Residue study shows no pesticide hazard in Pacific coast seafood. 728

Pesticide testing in dairy factory laboratories. 731

Pesticide residue in freshwater fish oils and meals. 735

Pesticide residues in total diet samples. 736

Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747

The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 751

No effect level of DDT in induction of microsomal epoxidation. 753

Insecticide residues in milk and dairy products. 763

The pesticide residue problem from the FDA'S point of view. 772

Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs. 777

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782

Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk. 783

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784

Pesticides: Present levels in food and possible sources of contamination. 785

Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786

Chlorinated hydrocarbons as residues in foods. 792

Commercial aspects of pesticide residues in foodstuff. 793

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796

Cleanup processes for pesticide residue analysis. 798

Determination of chlorinated pesticide residues in fat by electron capture gas chromatography. 799

Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802

DDT and dieldrin residues on pasture following dusting and spraying. 808

Section C: Pesticide residue content. 810

The toxicity and sublethal effects of p p'-DDT and dieldrin to *Aglaia urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria: Acrididae). 818

Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820

Detection and estimation of chlorinated pesticides in eggs. 826

The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830

Metals, other elements, and residues in foods. 831

Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840

Problems in monitoring DDT and its metabolites in the environment. 847

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. 848

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract). 849

Residues in vegetable crops following soil applications of insecticides. 851

Pesticides in people. Storage of DDT in the people of Israel. 866

Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs. 869

Pesticide residues. 873

Susceptibility and resistance of mosquito fish to several insecticides. 891

Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896

Pesticide residues in foods in relation to human health. 904

Toxicity of DDT, dieldrin, malathion and fenthion to *Rhodnius prolixus* in the laboratory. 908

The uptake from water by several species of fresh-water fish of p,p'-DDT, dieldrin, and lindane; their tissue distribution and elimination rate. 912

Dynamics of organochlorine insecticides in vertebrates and ecosystems. 943

Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium...American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 949

Some effects of DDT, dieldrin, dimethoate and fenthion on growth of cucumbers. 966

Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria.	967
Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract).	968
Pesticide effects in soils on nitrification and plant growth.	976
Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector.	990
Microcoulometric gas chromatography of pesticides.	992
Gas chromatography using an electron absorption detector.	999
Report on analytical methods for pesticide formulations.	1001
Screening methods for organochlorine and organophosphate insecticides in foods and feeds.	1021
Pesticides.	1025
Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata.	1026
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water.	1027
Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils.	1035
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041
Infrared spectra of pesticides.	1042
<b>DIET</b>	
The effect of DDT on reproduction in mice.	577
Relation between DDT in diets of laying birds and viability of their eggs.	582
Protein-deficient diet and DDT toxicity.	587
Pesticide residues in total diet samples.	736
No effect level of DDT in induction of microsomal epoxidation.	753
The effect of DDT in the diet on the resting and loading electrocorticogram record.	906
<b>DIETHOXYBENZALDEHYDE, 3,4-</b>	
An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, <i>Scolytus multistriatus</i> .	955
<b>DIETHYL 0,2-PYRAZINYL PHOSPHOROTHIOATE, 0,0-</b>	
Control of the corn earworm with American Cyanamid 18133.	357
<b>DIETHYL-M-TOLUAMIDE, N,N</b>	
An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, <i>Scolytus multistriatus</i> .	955
<b>DIETHYL-1-(2,5-DICHLOROPHENYL)-2-CHLOROVINYL PHOSPHATE</b>	
Evaluation of chemical and microbial materials for the control of the cabbage looper.	408
<b>DIETHYLSTILBESTROL</b>	
Estrogenic action of DDT and its analogs. (Abstract).	928

<b>DIFFERENTIAL NULL-ANALYSIS</b>	
The estimation of mixtures of DDT and BHC isomers using infrared differential null-analysis.	991
<b>DILAN</b>	
Field experiments on the insecticidal control of insects attacking peas, snap and lima beans.	499
The cotton leaf perforator and its control in Arizona.	531
Control of army cutworms in alfalfa during 1959.	564
Salt-marsh caterpillar control on cotton in Arizona.	567
<b>DIMETHOATE</b>	
The biology and control of the <i>Ceanothus</i> stem-gall moth, <i>Periploca ceanothiella</i> (Cosens).	147
Southern tree chapter briefed on borer control.	158
The toxicological action of three organophosphorus insecticides with three species of mosquito larvae.	200
Tomato spotted wilt (tomato spotted wilt virus).	327
Tomato yellow top.	328
Double your cotton yield by spraying.	346
Dosage levels and seasonal behavior of insecticides used in control of european pine shoot moth.	370
Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, <i>Rhyacionia buoliana</i> .	371
Neodiprion taedae linearis: A sawfly pest of loblolly and shortleaf pines.	383
Essay on insecticidal treatments on the apple fruit fly, <i>Rhagoletis pomonella</i> (Walsh) in southwest Quebec.	484
Control of several early-season cotton pests with insecticides.	486
Field experiments on the insecticidal control of insects attacking peas, snap and lima beans.	499
The cotton leaf perforator and its control in Arizona.	531
Control of the potato tuberworm in potatoes.	550
Effectiveness of several insecticidal aerosols against the Japanese beetle.	632
Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion.	743
Residuals of pesticides in cultivated mushrooms.	870
Pesticide residues in cultivated mushrooms.	871
The metabolism of contact insecticides in stored grains.	946
Some effects of DDT, dieldrin, dimethoate and fenthion on growth of cucumbers.	966
<b>DIMETHYL PHTHALATE</b>	
An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, <i>Scolytus multistriatus</i> .	955
<b>DIMETILAN</b>	
An analysis of house fly resistance to insecticides in California.	90

WARF anti-resistant: DDT selection and house fly crossresistance.	247
<b>DINITROCRESOL</b>	
The influence of site application on the toxicity of insecticides in red cotton bug, <i>Dysdercus cingulatus</i> , F.	190
<b>DIOXATHION</b>	
Field testing of insecticides for control of the Nantucket pine moth, <i>Rhyacionia frustrana</i> , and the European pine shoot moth, <i>R. buoliana</i> .	390
Biology and control of the apple seed chalcid in North Carolina.	530
<b>DIPPING</b>	
Britain imposes pesticide ban.	683
<b>DIPRION</b>	
Insecticides in Finnish forestry.	443
<b>DIPTERA</b>	
Effects of aldrin and DDT on soil fauna and arable land.	1
A summary of forest and shade tree insect-disease conditions for Maine 1967.	4
Superflies beat dichlorodiphenyltrichloroethane.	41
Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.	121
Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.	132
Safety of wildlife is important to planners of gnat-control program.	419
Laboratory tests of some insecticides against adults of the apple maggot, <i>Rhagoletis pomonella</i> .	456
<b>DISEASE TRANSMISSION</b>	
Technical problems of malaria eradication in Africa.	289
Entomological factors in persisting transmission of malaria in eradication programs.	290
<b>DISTILLATION</b>	
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae.	235
Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk.	783
Codistillation of DDT with water.	984
Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils.	1012
<b>DISULFOTON</b>	
Seed-corn maggot resistance to aldrin in Illinois.	105
Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq.	341
New insecticides for lygus bug control on vegetable seed crops.	373
<b>DODINE</b>	
Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple.	732
<b>DOG FOODS</b>	
DDT and related compounds in dog food and CSMA media used in insect rearing.	945
<b>DOGS</b>	
Diagnosis and treatment of poisoning in dogs.	590



# SUBJECT INDEX

## DOSAGE

### DOSAGE

Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests.

64

DDT resistance in *Oncopera*.

101

Low volume spraying by air to control mosquito larvae in California.

170

Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes.

173

Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm.

176

The group effect in the tests on insecticide resistance in *Aedes aegypti*.

198

Some physiological effects of sublethal doses of DDT on flour beetles.

219

Genetics of cyclodiene-insecticide resistance in the seed-corn maggot.

259

Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis.

301

Effects of sublethal doses of DDT on the reproduction and susceptibility of *Culex pipiens* L.

303

Chemical control of mango hoppers (*Idiocerus* spp.).

376

Effect of some pesticides on the adrenal glands in the rat.

580

Effects of DDT on brain electrical activity in awake, unrestrained rats.

596

Effect of DDT on temperature selection by young atlantic salmon, *Salmon solar*. (Abstract).

825

Pesticide residues in cultivated mushrooms.

871

DDT: Sublethal effects on brook trout nervous system.

884

The effect of DDT in the diet on the resting and loading electrocorticogram record.

906

The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography.

1011

### DROSICHA MANGIFERAE

Chemical control of *Drosicha mangiferae* (Green), a serious pest of *Citrus* spp. in Madhya Pradesh.

510

### DROSOPHILA

A preliminary report on mutations in the house fly.

264

### DROSOPHILA MELANOGASTER

Biological interaction between plasticizers and insecticides.

142

The metabolism of C-14 labeled DDT in larvae, pupae, and adults of *Drosophila melanogaster*.

162

Metabolism of 14C-labelled DDT in the larvae, pupae and adults of *Drosophila melanogaster*.

163

Controlling fluctuations of duration of developmental period in *Drosophila*.

172

DDT susceptibility of *Drosophila melanogaster* in relation to dietary amino nitrogen.

194

A morphometric analysis of strains of *Drosophila melanogaster* differing in DDT-RESISTANCE.

262

Pupation site differences in *Drosophila melanogaster*.

263

### DROSOPHILA PSEUDOOBSCURA

Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*.

244

### DRUG THERAPY

Malaria and victory in Vietnam.

288

The effect of DDT in the diet on the resting and loading electrocorticogram record.

906

Treatment of topical fungus infections with dichlorodiphenyltrichloroethane. Patent

909

Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine.

938

### DRYING

An autoradiographic study of invertebrate uptake of DDT-CL36.

232

### DRYNESS

The navel orangeworm in northern California.

562

### DUST (SOIL)

Infrared determination of DDT in dusts.

649

### DUSTING

Destruction of wasps.

40

Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles.

87

Micronised insecticidal dusts for aircraft disinsectisation.

218

Insect control for garden vegetables.

311

Don't take lightly these brinjal borers.

518

DDT residues on sweet corn ear tips and silks after treatment with dust, spray, or granular formulations.

759

Cuticula of leaves and the residue problem.

788

DDT and dieldrin residues on pasture following dusting and spraying.

808

Micronized insecticidal dusts for aircraft disinsectization.

951

### DYSDERCUS CINGULATUS

The influence of site application on the toxicity of insecticides in red cotton bug, *Dysdercus cingulatus*, F.

190

### EARTHWORMS

Control of earthworm.

573

Effects of certain insecticides on earthworms.

903

### EAST AFRICA

Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa.

230

### ECOLOGY

An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit.

15

Fewer pesticides- More control.

227

Environmental contamination problems.

654

Effects of pesticides on wildlife.

664

Distribution of heptachlor residues in pond ecosystems in southwestern Virginia.

868

DDT reduces photosynthesis by marine phytoplankton.

878

Ecological and nutritional studies on *Coleomegilla maculata* DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials.

886

DDT residues in pacific sea birds: a persistent insecticide in marine food chains.

942

Dynamics of organochlorine insecticides in vertebrates and ecosystems.

943

The optimum size for insecticide spray droplets.

1003

### ECONOMIC PLANTS

Pesticide residues in cultivated mushrooms.

871

### ECONOMICS

Low volume spraying by air to control mosquito larvae in California.

170

The United States and malaria: Debits and credits.

294

### EGG YOLKS

Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography.

714

### EGGPLANT

Don't take lightly these brinjal borers.

518

### EGGS

Dieldrin and DDT: Effects on sparrow hawk eggshells and reproduction.

183

Laboratory tests of insecticides against eggs and larvae of the cabbage looper.

447

Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk.

557

Relation between DDT in diets of laying birds and viability of their eggs.

582

Eggs and chlorinated hydrocarbons.

645

DDT residues on New York dairy farms following the gypsy moth eradication program.

765

DDT residues on New York dairy farms following the gypsy moth eradication programme.

766

Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs.

777

Residues in eggs and tissues of chickens on rations containing low levels of DDT.

789

Detection and estimation of chlorinated pesticides in eggs.

826

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs.

848

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract).

849

# SUBJECT INDEX

## ENDRIN

- Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs. 869
- DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880
- DDT residues in pacific sea birds: a persistent insecticide in marine food chains. 942
- ELASMOPALPUS**  
Control of the lesser cornstalk borer attacking peanuts. 411
- ELATERIDAE**  
Insect control for garden vegetables. 311
- Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365
- ELECTRODES**  
Effects of DDT on brain electrical activity in awake, unrestrained rats. 596
- The effect of DDT in the diet on the resting and loading electrocorticogram record. 906
- ELECTROMYOGRAMS**  
Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49
- ELECTRON CAPTURE**  
The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830
- Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840
- Estimation of chlorinated pesticide residues in animal and vegetable oils. 842
- Separation and measurement of perthane, DDD (TDE) and DDT in leafy vegetables by electron-capture gas chromatography. 1009
- Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029
- Chlorinated insecticides and miticides Electron capture gas chromatography for determination of DDT in butter and some vegetable oils. 1039
- ELECTRONIC STRUCTURE**  
Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 46
- ELECTROPHYSIOLOGY**  
Effects of DDT on brain electrical activity in awake, unrestrained rats. 596
- The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum. 887
- The effect of DDT in the diet on the resting and loading electrocorticogram record. 906
- Mode of action of DDT and allethrin on nerve: Cellular and molecular mechanisms. 934
- ELECTROSTATIC DUSTING**  
An effect of electrostatic dusting on DDT dust deposition. 1037
- EMPOASCA FLAVESCENS**  
The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528
- EMULSIFYING AGENTS**  
Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60
- Effects of some spray adjuvants on dDT emulsifiable concentrate. 1007
- EMULSIONS**  
A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472
- ENCEPHALITIS**  
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis. 301
- ENDOSAN**  
Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341
- ENDOSULFAN**  
Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 135
- Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175
- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 329
- New insecticides for lygus bug control on vegetable seed crops. 336
- Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341
- Control of the lesser peach tree borer in virginia. 358
- Insecticide control of *Heliothis punctigera* Walengr. II. Linseed crop, 1961. 360
- European corn borer control in potatoes. 362
- New insecticides for lygus bug control on vegetable seed crops. 373
- Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 447
- Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 495
- Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499
- Control of the peach tree borer on young peach trees by preplant treatment with DDT, dieldrin, and endosulfan. 515
- Brief history of aphid control on potatoes in south Florida, 1946-59. 544
- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548
- Control of the potato tuberworm in potatoes. 550
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- On the distribution of pest control agents. 662
- Gas chromatography for the analysis of pesticides using Acrograph electron capture detector. 994
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- Infrared spectra of pesticides. 1042
- ENDRIN**  
The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 19
- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the Eye gnat, *Hippelates collusor*. 24
- Resistance to some chlorinated hydrocarbon insecticides in the bollworm, *Heliothis zea*. 95
- The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 123
- Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 135
- Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139
- Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175
- Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176
- Pick-up of insecticide through different pairs of house fly tarsi. 185
- Field tests for control of overwintered boll weevils. 209
- Variability in insecticide tolerance of eighteen honey-bee colonies. 221
- Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa. 230
- Control of *Hippelates* gnats with soil treatments using organochlorine insecticides. 291
- Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 329
- Double your cotton yield by spraying. 346
- Control of the lesser peach tree borer in virginia. 358
- Chemical control of mango hopppers (*Idiocerus* spp.). 376
- Field experiments on control of overwintered boll weevils. 397
- Control of lesser cornstalk borer attacking groundnuts. 410
- Control of the lesser cornstalk borer attacking peanuts. 411
- Laboratory tests of insecticides against the salt-marsh caterpillar. 413
- Effectiveness of insecticides against the European maize borer and green peach aphid on peppers. 427
- Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia. 429
- Bee poisoning versus clover seed weevil control in white dutch clover grown for seed. 441



# SUBJECT INDEX

## ENNOMOS SUBSIGNARIUS

Laboratory tests of insecticides against eggs and larvae of the cabbage looper.	447
Control of sugar cane borer with insecticides.	452
Note on the control of gall-fly ( <i>Asphondylia sesami</i> Felt.) on sesame.	475
Loss of chlorinated hydrocarbon insecticides from soil surface in the field.	476
Countering the castor semi-looper.	483
Compatibility studies on <i>Bacillus thuringiensis</i> Berliner with chlorinated hydrocarbons.	495
Chemical control of <i>Drosicha mangiferae</i> (Green), a serious pest of Citrus spp. in Madhya Pradesh.	510
Don't take lightly these brinjal borers.	518
Field tests with various insecticides for the control of <i>Lygus</i> bugs and the corn earworm on lima beans.	522
Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests.	529
The cotton leaf perforator and its control in Arizona.	531
A note on the control of the semi-cooper, <i>Achaea Janata</i> L., on castor.	534
Insecticide studies on the maize stalk border, <i>Busseola fusca</i> (Fuller) in E. Africa.	536
Insecticide sprays for control of insects on various vegetable crops.	543
Control of the potato tuberworm in potatoes.	550
Effectiveness of DDT for cabbage caterpillar control in Indiana, 1945 to 1960.	555
Seasonal history and response to insecticides of <i>Heliothis</i> species on cotton.	559
Control of army cutworms in alfalfa during 1959.	564
Experiments on control of the sugar-beet wireworm in southern California bean fields.	565
Salt-marsh caterpillar control on cotton in Arizona.	567
Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils.	569
Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides.	584
Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues.	594
Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, <i>Hippelates collusor</i> .	613
Saving stored rice from attacks of insect pests.	628
Some insecticidal trials for the protection of til seeds in storage.	629
Pesticide monitoring programs.	639
Anaerobic degradation of selected chlorinated hydrocarbon pesticides.	650

Collection and analysis of synthetic organic pesticides from surface and ground water.	652
Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides.	655
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	659
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	660
Methods for extracting insecticides from soil.	669
Methods for extracting insecticides from soil.	671
Water pesticides. 2.	674
Calls for ban on broad spectrum insecticides.	681
Persistent pesticides.	688
Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966.	690
Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues.	699
Microcoulometric gas chromatography of pesticides.	718
Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas.	722
Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides.	747
Insecticide residues in milk and dairy products.	763
The pesticide residue problem from the FDA'S point of view.	772
Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs.	777
Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography.	781
Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography.	782
Section C: Pesticide residue content.	810
Loss of chlorinated hydrocarbon insecticides from soil surface in the field.	821
Metals, other elements, and residues in foods.	831
Problems in monitoring DDT and its metabolites in the environment.	847
Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs.	869
Ecological and nutritional studies on <i>Coleomegilla maculata</i> DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials.	886
Pesticide residues in foods in relation to human health.	904
Insecticide-resistant fishes: A potential hazard to consumers.	907

Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector.	990
Microcoulometric gas chromatography of pesticides.	992
Gas chromatography using an electron absorption detector.	999
Report on analytical methods for pesticide formulations.	1001
Pesticides.	1025
Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata.	1026
Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils.	1035
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041
Infrared spectra of pesticides.	1042
ENNOMOS SUBSIGNARIUS	
DDT residues in mountain stream water as influenced by treatment practices.	647
ENTOMOPHAGOUS INSECTS	
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California.	521
ENTOMOGENOUS FUNGI	
The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	19
The influence of the fungus <i>Beauveria bassiana</i> Vuill. on the fertility and the diapause of <i>Lepidotarsa decemlineata</i> Say.	83
The problem of the utilization of entomopathogenic microorganisms in combination with insecticides.	223
ENVIRONMENT	
Biology and control of native and introduced forest insects in the Nearctic Zone.	6
Science and sense. As presented to the Weed Society of America, February 8, 1966.	316
DDT yes or no .	636
Environmental pollution: Scientists go to court.	640
Environmental contamination problems.	654
DDT contamination of feed and residues in milk.	658
Problems in monitoring DDT and its metabolites in the environment.	847
The control of technology. solandt, o m.	1062
ENVIRONMENTAL EFFECTS	
Growth and resistance to stress in brook trout fed sublethal levels of DDT.	929
ENZYMES	
A new DDT-METABOLIZING enzyme in the German cockroach.	30
The induction of NAD kinase by DDT in <i>Triatoma infestans</i> .	32
Some properties of the microsomal system metabolizing DDT in <i>Triatoma infestans</i> .	33

- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Effect of some pesticides on the adrenal glands in the rat. 580
- Pesticide-induced enzyme breakdown of steroids in birds. 583
- Problems in monitoring DDT and its metabolites in the environment. 847
- Estrogenic action of DDT and its analogs. (Abstract). 928
- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- DDT-INDUCED metabolic changes in rat liver. 947
- EPHEMEROPTERA**
- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132
- Apparent DDT tolerance in an aquatic insect disproved by test. 214
- Development of DDT resistance in certain mayflies in New Brunswick. 249
- EPHESTIA**
- Responses of raisin moth larvae to residues of six insecticidal sprays. 631
- EPIDEMIOLOGY**
- On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania. 106
- Summary of recent abstracts. VI. Plague. 283
- The gypsy moth threat in America. 320
- An epidemiologic application of the study of DDE levels in whole blood. 726
- EPINEPHRINE**
- Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49
- EPITRIX**
- Laboratory studies of three-lined potato beetle and control with various insecticides. 446
- EPITRIX TUBERIS**
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (Coleoptera: Chrysomelidae), in British Columbia. 44
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (Coleoptera: Chrysomelidae), in British Columbia. 349
- EPN**
- Performance of sevin against grape berry moth. 524
- Pesticide residues in foods in relation to human health. 904
- EQUIPMENT**
- Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers. 222
- Pesticide testing in dairy factory laboratories. 731
- Theoretical and practical aspects of room spraying. 1046
- ERADICATION**
- Technical problems of malaria eradication in Africa. 289
- Entomological factors in persisting transmission of malaria in eradication programs. 290
- Organising an eradication programme for *Aedes aegypti* in the USA. 308
- ESCHERICHIA COLI**
- Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria. 967
- Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract). 968
- ESTERS**
- Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L. 189
- ESTIGMENE**
- Laboratory tests of insecticides against the salt-marsh caterpillar. 413
- ESTIGMENE ACREA**
- Salt-marsh caterpillar control on cotton in Arizona. 567
- ESTRADIOL**
- Estrogenic action of DDT and its analogs. (Abstract). 928
- ESTROGENS**
- Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576
- Estrogenic action of DDT and its analogs. (Abstract). 928
- ETHION**
- Use of *Daphnia magna* for the microbioassay of pesticides. II. Comparison of microbioassay with gas chromatography for analysis of pesticide residues in plant extracts. 8
- New insecticides for lygus bug control on vegetable seed crops. 373
- Pear leaf scorch and its relation to the European red mite. 392
- Evaluation of chemical and microbial materials for the control of the cabbage looper. 408
- Evaluation of insecticides for control of the tobacco thrips on peanuts. 409
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 424
- Evaluation of new materials for codling moth control in Washington. 431
- Effect of mite control on corn yield. 448
- Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499
- Control of *Sparganothis sulfurana* on cranberry. 527
- Residues and chemosterilants: Ultimate distribution. 651
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. 764
- ETHIONINE**
- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- ETHYL CHLORIDE**
- Glutathione turnover in *Triatoma infestans* treated with 2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane. 124
- ETHYL O-2,4,5-TRICHLOROPHENYL ETHYLPHOSPHONOTHIOATE, O**
- Experiments on the insecticidal control of *Oxyanctus fuscomaculatus* Walker (Lepidoptera: Hepialidae). 412
- ETHYLENE**
- DDT storage in the U. S. population. (Abstract). 829
- ETHYLTHIO)ETHYL O,O-DIMETHYL PHOSPHORODITHIOATE, S-(2-**
- Double your cotton yield by spraying. 346
- EULOPHIDAE**
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- EUROPE**
- Is there room for U.S. firms in the European pesticide market. 1058
- EURYTOMIDAE**
- Some recommendations for the control of perforators of seeds of Anonaceae (*Bephrata* sp. order Hymenoptera). 500
- EUSTRONGYLIDAE**
- A merganser die-off associated with larval eustrongylids. 589
- EUXOA MESSORIA**
- Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm. 104
- EUZOPHERA PERTICELLA**
- Don't take lightly these brinjal borers. 518
- EVALUATION**
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- EVAPORATION**
- Effect of soil cultivation, soil surface and water on the persistence of insecticidal residues in soils. 661
- EVERGLADES**
- Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control. 416
- EXCRETA**
- Some physiological effects of sublethal doses of DDT on flour beetles. 219
- Excretion of DDT by migratory birds. 762
- DDT-METABOLISM and excretion in *Coleomegilla maculata* De Geer. 885
- EXPERIMENTAL INSECTS**
- Studies on the efficiency of collecting and counting *Anopheles gambiac* in verandah-trap huts. 3
- Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm. 104
- The group effect in the tests on insecticide resistance in *Aedes aegypti*. 198



**EXTRACTION TECHNIQUES**

**EXTRACTION TECHNIQUES**

Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029

**EXTRACTS**

Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119

**EYE GNAT**

Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides. 213

**EYES**

Some new mutants and linkage groups of the house fly. 251

**FANNIA**

Houseflies, blowflies and cluster flies. 610

**FANNIA CANICULARIS**

Area control of *Fannia canicularis*. 625

**FATS**

Pesticide storage in human fat tissue. 588

Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE. 591

Insecticides in human fat in New Zealand. 703

DDT in fats on Antarctic animals. 704

Identification of pesticide residues in extracts of fruit, vegetables and animal fats III. Metabolites of chlorinated hydrocarbon pesticides in animal depot-fat. 797

Determination of chlorinated pesticide residues in fat by electron capture gas chromatography. 799

Investigation to determine the respective residue amounts of DDT and its analogues in the milk and back fat of selected dairy animals. 819

DDT storage in the U. S. population. (Abstract). 829

Estimation of chlorinated pesticide residues in animal and vegetable oils. 842

Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils. 1012

Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035

**FATTY ACIDS**

Estrogenic action of DDT and its analogs. (Abstract). 928

**FECES**

Interaction of DDT and the gastrointestinal microflora of the rat. 892

**FEED**

Relation between DDT in diets of laying birds and viability of their eggs. 582

DDT contamination of feed and residues in milk. 658

Pesticide residues in food. 689

Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content. 700

Problems with DDT in fish culture operations. 720

Pesticide residue in freshwater fish oils and meals. 735

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract). 849

Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 872

Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats. 900

Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937

**FEED CONTAMINATION**

Problems with DDT in fish culture operations. 719

**FEEDING**

Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60

DDT-RESISTANCE in two strains of *Culex pipiens pipiens* Linnaeus from New Jersey. 111

The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo c. erythrophthalmus* Linnaeus). 578

DDT residues in beef cows fed apple pomace. 835

Toxic residues in marine foods. 864

**FELTIA SUBTERRANEA**

Cabbage looper control in Florida - a cooperative program. 404

**FENTHION**

New insecticides for control of salt-marsh mosquitoes. 10

The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenée) (Lepidoptera: Noctuidae) to several contact insecticides. 37

Practical importance of resistance to insecticides in *Anopheles*. 72

The susceptibility to insecticides of populations of *Aedes aegypti* from Queensland, Australia. 113

Carbamate and phosphate resistance in adult granary weevils. 255

The susceptibility of *Culex pipiens molestus* forskal in Israel to several insecticides in 1958-1960 and in 1965. 269

Results of tests of sensitivity to insecticides of *Anopheles* adults in Rumania. 275

Resistance of *Aedes taeniorhynchus* (Wiedemann) to malathion. 287

Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347

Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387

Alternatives to DDT for the control of the pea moth on dry harvesting peas. 403

Experiments on the insecticidal control of *Oxycaenus fuscomaculatus* Walker (Lepidoptera: Hepialidae). 412

Field tests with insecticides for pink bollworm control in 1958. 461

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489

Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*. 571

Laboratory evaluation of insecticides against the cigarette beetle. 894

Toxicity of DDT, dieldrin, malathion and fenthion to *Rhodnius prolixus* in the laboratory. 908

Some effects of DDT, dieldrin, dimethoate and fenthion on growth of cucumbers. 966

**FERBAN**

Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997

**FERMENTATION**

Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996

**FERTILITY**

Effect of DDT poisoning on the longevity and fecundity of the pink bollworm. 29

The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Lepidotarsa decemlineata* Say. 83

Some physiological effects of sublethal doses of DDT on flour beetles. 219

The toxicity and sublethal effects of p p'-DDT and dieldrin to *Aglais urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria: Acrididae). 818

**FERTILIZER APPLICATION**

Maryland arborists discuss insect control. 458

**FERTILIZERS**

Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192

Maryland arborists discuss insect control. 458

Britain imposes pesticide ban. 683

**FIBERS**

Cotton fiber quality as related to some cotton insect control programs and time of fruit setting. 492

**FIELD CROPS**

Indications on plant care for olive crop cultivation. 430

Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967. 434

Bloodworms-pests of rice. 442

Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 521

**FIELD DATA**

Correlation between laboratory and field data on testing insecticides. 952

**FILBERTS**

Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533

**FISH**

Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121

Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132

Hemlock looper control spraying called best planned and safest forest project. 547

Effects on wild young salmon of spraying DDT over New Brunswick forests. 644

# SUBJECT INDEX

## FOOD PROCESSING

- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656
- DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide. 678
- Editorials. 680
- Calls for ban on broad spectrum insecticides. 681
- Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food. 702
- Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708
- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- Problems with DDT in fish culture operations. 719
- Problems with DDT in fish culture operations. 720
- DDT residues and metabolites in Canadian Atlantic coast fish. 734
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 771
- Reproduction in brook trout (*Salvelinus fontinalis*) fed sublethal concentrations of DDT. 790
- Organochlorine pesticides in Antarctica. 857
- Toxic residues in marine foods. 864
- Survival of fish in 164 herbicides, insecticides, fungicides, wetting agents and miscellaneous substances. 882
- The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum. 887
- Insecticide-resistant fishes: A potential hazard to consumers. 907
- The uptake from water by several species of fresh-water fish of p,p-DDT, dieldrin, and lindane; their tissue distribution and elimination rate. 912
- Food chain studies. 923
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926
- Living safely with pesticides through education and understanding. 1060
- FISH MEAL**
- Pesticide residue in freshwater fish oils and meals. 735
- FISHERY PRODUCTS**
- Problems with DDT in fish culture operations. 720
- FLASMOPLAPUS**
- Control of lesser cornstalk borer attacking groundnuts. 410
- FLAXSEED**
- Insecticide control of *Heliothis punctigera* Wal-lengr. II. Linseed crop, 1961. 360
- FLORIDA**
- Relative susceptibility of salt-marsh mosquitoes from Georgia and Florida to insecticides. 233
- Notes on the syntomid moth *Lymire edwardsi* (Grote) and its control as a pest of *Ficus* in south Florida. 300
- FLORISIL**
- Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography. 714
- Pesticide testing in dairy factory laboratories. 731
- Activation studies on Florisil. 815
- FLOUR**
- Determining small amounts of DDT in flour and other foodstuffs. 687
- FLUORESCENCE**
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- FLUORESCENT SUBSTANCES**
- The optimum size for insecticide spray droplets. 1003
- FLUORINE**
- Metals, other elements, and residues in foods. 831
- FOG**
- Theoretical and practical aspects of room spraying. 1046
- FOLIAGE**
- Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365
- FOOD**
- Pesticide residues in total diet samples. 736
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796
- Food chain studies. 923
- FOOD ADDITIVES**
- DDT, proposed establishment of pesticide and food additive tolerances. 861
- Pesticide residues in foods in relation to human health. 904
- Japanese laws and regulations concerned with pesticide and food additive residues in food-stuffs. 1064
- FOOD ANALYSIS**
- Ascending paper chromatography: A way to do it. 1015
- FOOD CONTAMINATION**
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- Predicting and measuring the solubility of p,p'-DDT in water. 638
- Corroborative study of certain chlorinated organic pesticides in dairy products. 685
- Residue tolerances set for DDT in milk. 698
- Microcoulometric gas chromatography of pesticides. 718
- Insecticide residues in milk and dairy products. 763
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782
- Pesticides: Present levels in food and possible sources of contamination. 785
- Chlorinated hydrocarbons as residues in foods. 792
- Commercial aspects of pesticide residues in foodstuff. 793
- DDT, in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 812
- DDT, in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 813
- Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816
- Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 817
- Metals, other elements, and residues in foods. 831
- Note on improved extraction for chlorinated pesticide residues in oysters. 833
- Note on improved extraction for chlorinated pesticide residues in oysters. 834
- Rapid screening method for DDT in milk with gas chromatography. 838
- Rapid screening method for DDT in milk with gas chromatography. 839
- Pesticide residues. 845
- Problems in WHO on pesticide residues. in: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna 12-16 April 1965. sB953.P32. 850
- Secretion of DDT by lactating cows fed thyroprotein. 853
- Pesticide residues in dairy produce. 856
- DDT and related compounds in dog food and CSMA media used in insect rearing. 945
- Ascending paper chromatography: A way to do it. 1015
- FOOD PLANTS**
- Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Bch.) and experiments in chemical control. 493
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agriculture commodities. DDT. 754
- FOOD POISONING**
- Insecticide-resistant fishes: A potential hazard to consumers. 907
- FOOD PROCESSING**
- Distribution and stability of DDE, DDD, and DDT in Monterey and cheddar cheese during manufacture and storage. 620



# SUBJECT INDEX

## FOOD STORAGE

- Removal of DDT, malathion, and carbaryl from green beans by commercial and home preparative procedures. 742
- Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods. 745
- Behavior of DDT in potatoes during commercial and home preparation. 779
- Removal of DDT, parathion, and carbaryl from spinach by commercial and home preparative methods. 780

## FOOD STORAGE

- Distribution and stability of DDE, DDD, and DDT in Monterey and cheddar cheese during manufacture and storage. 620
- Insecticide residue in foods subjected to aerosols under simulated warehouse conditions. 794

## FOOD SUPPLY

- Search for biological controls poses threat to nation's food supply. 315
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769

## FOREIGN TRADE

- No serious problem with pesticide residues. 696
- Commercial aspects of pesticide residues in foodstuff. 793
- Pesticide residues - USDA'S position. 860
- 1962 pesticide exports show gain during first half. 1052
- Pesticide exports from U.S. increase by 22 per cent in 1962. 1057

## FOREST INSECTS

- A summary of forest and shade tree insect-disease conditions for Maine 1967. 4
- Biology and control of native and introduced forest insects in the Nearctic Zone. 6
- Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests. 64
- Anopheles moucheti* in Cameroon. 168
- Board lists precautions for forest spray programs. 306
- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- Forest entomology. 353
- Control of a spruce budworm outbreak in Quebec through aerial spraying operations. 356
- The persistence of gypsy moth parasites in heavily sprayed areas on Cape Cod, Massachusetts. 391
- The European pine shoot moth; ecology and control in the Lake States. 465

## FOREST MANAGEMENT

- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770

## FOREST SOILS

- The effects of DDT and malathion upon forest soil microarthropods. 418

- Techniques and preliminary data of the movement of DDT and Zectran through a forest soil. 646
- The behavior of DDT and Zectran on a forest soil. 666

## FORESTRY

- Insecticides in Norwegian forestry. 348
- An estimate of the area of Danish forestry which is treated with pesticides other than herbicides. 351
- Insecticides in Finnish forestry. 443

## FORESTS

- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132
- Board lists precautions for forest spray programs. 306
- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 644
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926

## FORMALDEHYDE

- A new disease of bananas in the Cauca Valley: a bacteriosis. 326

## FORMOTHION

- Double your cotton yield by spraying. 346
- The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

## FORMULATIONS

- Double your cotton yield by spraying. 346
- Fifty years of research on the pink bollworm in the United States. 479
- Pesticides' unsung assistants. 1000

## FRANKLINIELLA

- Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387
- Evaluation of insecticides for control of the tobacco thrips on peanuts. 409
- Control of several early-season cotton pests with insecticides. 486

## FROGS

- Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747
- Action of DDT on the peripheral nervous system of the grass frog *Rana pipiens*. 920

## FRUIT

- An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit. 15
- Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438

- The oriental fruit moth and its control. 463
- Capsid bugs on fruit. 469

- New contributions to the subject 'birds and agriculture'. 574

- Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples. 859

- Accumulation of DDT in fruit plantings when used continuously. 865

## FUMIGANTS

- Cockroach control - past, present and future. 61
- Pesticides and the soil fauna; effects of Aldrin and DDT in an arable field. 740

## FUMIGATION

- The old house borer in Eastern States. 38
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871

## FUNGI

- Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312

## FUNGICIDES

- Changes in usage of plant protection preparations during the last fifteen years. 310
- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- Survival of fish in 164 herbicides, insecticides, fungicides, wetting agents and miscellaneous substances. 882
- Treatment of topical fungus infections with dichlorodiphenyltrichloroethane. Patent 3,389,049. 909

## FUNGUS DISEASES (PLANTS)

- Diseases and parasites of the rose. 322
- Low temperature sprays for Dutch elm disease control. 323
- Bark beetles. 539

## FUSARIUM

- Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots. 314

## GALL-MAKING INSECTS

- Note on the control of gall-fly (*Asphondylia sesami* Felt.) on sesame. 475

## GALLERIA

- Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

## GAMBUSIA

- Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*. 571
- Susceptibility and resistance of mosquito fish to several insecticides. 891

## GAMBUSIA AFFINIS

- Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*. 571

## GAME BIRDS

- Seed dressings and game birds. 585
- Kinetics of C1-36 DDT in wild waterfowl. 902

## GARDENS

- Insect control for garden vegetables. 311

**GASTROINTESTINAL SYSTEM**

Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

Interaction of DDT and the gastrointestinal microflora of the rat. 892

**GEIGY 12968**

Laboratory evaluation of insecticides against the cigarette beetle. 894

**GELECHIIDAE**

Double your cotton yield by spraying. 346

**GELIS**

Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516

**GENERAL CHEMICAL 4072**

Field tests of dichlorvos, General Chemical 4072, Hooker Compound, and synergized DDT against *Musca domestica*. 156

**GENES**

Insecticide resistance in the house fly: Decreased rate of absorption Is the mechanism of action of a gene that acts as an intensifier of resistance. 182

Insecticide-resistance in *Culex pipiens fatigans*. 245

DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254

Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257

Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261

Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann. 265

DDT resistance in barley, *Hordeum vulgare*- I. Induced mutants for resistance. 319

**GENETICS**

Seasonal history and response to insecticides of *Heliothis* species on cotton. 559

**GEOMETRIDAE**

Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333

Precision application credited with success of forest project. 338

Hemlock looper control spraying called best planned and safest forest project. 547

Insecticidal control fo the pine looper in Great Britain. I. Aerial spraying. 553

**GEORGIA**

Relative susceptibility of salt-marsh mosquitoes from Georgia and Florida to insecticides. 233

**GIBBERELIC ACID**

Effects of pesticidal treatments on the chlorophyll content of plant parts. 965

**GINGER**

Contamination of bagged whole ginger after surface treatment with two synthetic contact insecticides. 627

**GLOSSINA**

Use of WHO tsetse fly kit for determining resistance in the stable fly. 169

**GLOSSINA MORSITANS**

The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia. 599

Residual insecticides for use against tsetse flies in Rhodesia. 617

**GLOSSINA MORSITANS SUBMORSITANS**

Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers. 222

**GLOSSINA PALLIDIPE**

Residual insecticides for use against tsetse flies in Rhodesia. 617

**GLUCOSE**

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77

Estrogenic action of DDT and its analogs. (Abstract). 928

**GLUTAMINE**

Chlorophenothane (DDT) and glutamine in pentylenetetrazole (Cardiazole) convulsions in the rat. 913

**GLUTATHIONE**

Glutathione turnover in *Triatoma infestans* treated with 2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane. 124

**GLYDIN**

Designing orchard experiments for european red mite control. 385

Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple. 732

Metals, other elements, and residues in foods. 831

**GNORIMOSCHEMA**

Control of the potato tuberworm in potatoes. 550

**GOTHION**

Control of boll weevils resistant to chlorinated hydrocarbons. 535

**GRAIN**

The blue oat mite *Penthaleus major* (Duges) (Acarina: Eupodidae). 406

The metabolism of contact insecticides in stored grains. 946

**GRAPE VINEYARDS**

The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

**GRAPES**

Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*. 382

Performance of sevin against grape berry moth. 524

Performance of Sevin against grape berry moth. 525

DDT deposits on grapes as affected by growth and weathering. 855

**GRAPHOLITHA MOLESTA**

The oriental fruit moth and its control. 463

Some effects of DDT on *Pulvinaria vitis* (L.) (Homoptera: Coccidae) infesting peach in Ontario. 491

Insecticide contamination of rooms and equipment used to rear the oriental fruit moth. 737

**GRASSES**

Note on damage to grasses in the Peace River region by the spittlebug, *Philaronia bilineata* Say, (Cercopidae: Hemiptera). 344

The blue oat mite *Penthaleus major* (Duges) (Acarina: Eupodidae). 406

**GRAZING**

DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT prills and DDTsuperphosphate. (abstract). 760

**GREENHOUSES**

Insecticide contamination of rooms and equipment used to rear the oriental fruit moth. 737

**GROUNDWATER**

Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 672

**GRUBS**

Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398

**GUINEA PIGS**

House fly pupation under baseboards. 611

**GYNANDROMORPHISM**

A gynandromorph of the German cockroach, *Blattella germanica*. 197

**HAEMATOBIA**

Laboratory evaluation of insecticides against the adult horn fly. 141

**HAEMATOBIA IRRITANS**

Pour-on treatments of DDT or toxaphene for horn fly control. 944

**HALOGEN COMPOUNDS**

3,6,9,10-tetrahalogenphenanthrene. A new cycliarylation reaction of DDT derivatives. 1032

**HALOGENATED INSECTICIDES**

Persistence of pesticides in orchards and orchard soils. 673

**HARDWOODS**

The gypsy moth threat in America. 320

**HARPALUS RUFIPES**

Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78

**HARVESTING**

Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples. 859

**HAY**

DDT residues on New York dairy farms following the gypsy moth eradication programme. 766

**HEAT**

The navel orangeworm in northern California. 562

**HELICOPTERS**

Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333

**HELIOTHIS**

Insecticide control of *Heliothis punctigera* Wal-lengr. II. Linseed crop, 1961. 360

Seasonal history and response to insecticides of *Heliothis* species on cotton. 559

The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957



# SUBJECT INDEX

## HELIOTHIS ARMIGERA

### HELIOTHIS ARMIGERA

The determination of DDT deposited on cotton plants in an airspray trial in Tanzania. 331

### HELIOTHIS VIRESCENS

Resistance to DDT in *Heliothis virescens*. 53

Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60

Bollworm and tobacco budworm resistance to several insecticides in the Lower Rio Grande Valley of Texas. 150

Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176

Investigations of the possibility of host specific strains of the bollworm and tobacco budworm in Mississippi. 210

Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238

### HELIOTHIS ZEA

Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn. 21

Utilization of DDT resistance as a means of investigating the possible existence of host-specific strains of the bollworm, *Heliothis zea*. 52

DDT resistance in *Heliothis zea*. 54

Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60

Resistance to some chlorinated hydrocarbon insecticides in the bollworm, *Heliothis zea*. 95

The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 123

Bollworm and tobacco budworm resistance to several insecticides in the Lower Rio Grande Valley of Texas. 150

Investigations of the possibility of host specific strains of the bollworm and tobacco budworm in Mississippi. 210

Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238

Low-volume aerial spraying of several insecticides for cotton-insect control. 340

Control of the corn earworm with American Cyanamid 18133. 357

The performance of DDT for corn earworm control over an eleven year period. 374

Field experiments against several late-season cotton insects in 1959. 380

Control of several cotton insects in field experiments in 1960. 381

Field experiments against several late-season cotton insects in 1959. 386

Chemagro offers 'practical' program to selectively control pests of cotton. 400

Adjuvants in sprays for insect control on sweet corn. 414

DDT spray formulations and dosages for control of corn stem weevil, *Hyperodes humilis*. 415

Effectiveness of insecticides against the corn earworm in sorghum heads. 421

Evaluation in the greenhouse of a new insecticide for bollworm control. 454

Field tests with insecticides for pink bollworm control in 1958. 461

A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472

Control of bollworm adults on cotton with insecticides. 473

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489

Observations on soybean insects in Maryland. 498

Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499

Control of the corn earworm on sweet corn in Eastern Nebraska. 519

Field tests with various insecticides for the control of Lygus bugs and the corn earworm on lima beans. 522

Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control. 542

Insecticide sprays for control of insects on various vegetable crops. 543

Effect of DDT on control of corn earworms in sweet corn entries selected for varying resistance. 545

Treated bags for control of the corn earworm and fall armyworm. 552

Factors involved in differential susceptibility of corn earworm larvae to DDT. 554

Maize earworm oviposition and the effect of DDT on the egg predator complex in maize silk. 556

Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk. 557

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 560

Cotton pests exhibit resistance to DDT. 563

The effect of plant type upon corn earworm control in sweet corn. 568

Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741

Paraffinic and naphthenic oil fractions in combination with DDT and a *Heliothis* virus for corn earworm control. 962

The optimum size for insecticide spray droplets. 1003

Residue situation hurts DDT sales. 1059

## HEMIPTERA

Note on damage to grasses in the Peace River region by the spittlebug, *Philaronia bilineata* Say, (Cercopidae: Hemiptera). 344

## HEMITARSONEMUS LATUS

Control of yellow tea mite, *Hemitarsonemus latus* (Banks) with DDT on cotton in Uganda. 436

The control of yellow tea mite, *Hemitarsonemus latus* (Banks), with DDT on cotton in Uganda. 437

## HEMOGLOBIN (PLANTS)

Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of *Phaseolus aureus* (green gram). 971

## HEPTACHLOR

Use of *Daphnia magna* for the microbioassay of pesticides. I. Development of standardized techniques for rearing *Daphnia* and preparation of dosage-mortality curves for pesticides. 9

Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175

Pick-up of insecticide through different pairs of house fly tarsi. 185

Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*). 226

The brown-banded cockroach in Hamburg. 236

Soil treatments with insecticides for control of the eye gnats *Hippelates collusor* and *H. hermsi*. 292

Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots. 314

Some pests of ornamental plants in Madras. 339

Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398

Problems in the control of mint insects. 401

Laboratory tests of insecticides against the salt-marsh caterpillar. 413

Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 521

Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533

A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548

Treated bags for control of the corn earworm and fall armyworm. 552

Experiments on control of the sugar-beet wireworm in southern California bean fields. 565

Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569

Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 612

Termite control measures in building construction. 624

Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642

Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650

Collection and analysis of synthetic organic pesticides from surface and ground water. 652

Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659

Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	660
Water pesticides. 2.	674
Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others.	677
Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon.	691
Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food.	702
Gas chromatography with microcoulometric detection for pesticide residue analysis.	709
Residue study shows no pesticide hazard in Pacific coast seafood.	728
Pesticide residue in freshwater fish oils and meals.	735
Translocation of DDT and heptachlor in soybeans.	739
The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor.	751
Insecticide residues in milk and dairy products.	763
Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs.	777
Section C: Pesticide residue content.	810
Pesticide residues in commercial animal feeds.	811
Activation studies on Florisil.	815
Note on improved extraction for chlorinated pesticide residues in oysters.	833
Note on improved extraction for chlorinated pesticide residues in oysters.	834
Quantitative paper chromatography of chlorinated insecticides in soils.	837
Problems in monitoring DDT and its metabolites in the environment.	847
Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs.	848
Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract).	849
Distribution of heptachlor residues in pond ecosystems in southwestern Virginia.	868
Pesticide residues.	873
Susceptibility and resistance of mosquito fish to several insecticides.	891
The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides.	931
Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria.	967
Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract).	968

Pesticide effects in soils on nitrification and plant growth.	976
Report on analytical methods for pesticide formulations.	989
Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector.	990
Selective detection and identification of pesticide residues.	1004
Degradation of gamma-BHC in simulated lake impoundments as affected by aeration.	1017
Screening methods for organochlorine and organophosphate insecticides in foods and feeds.	1021
Pesticides.	1025
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water.	1027
Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides.	1034
Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils.	1035
Thin-layer chromatography for chlorinated pesticide residue analysis.	1040
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041
DDT and heptachlor as black-fly larvicides in clear and turbid water.	1051
HEPTACHLOR EPOXIDE	
Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides.	584
Anaerobic degradation of selected chlorinated hydrocarbon pesticides.	650
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	659
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	660
Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others.	677
Corroborative study of certain chlorinated organic pesticides in dairy products.	685
Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food.	702
Gas chromatography with microcoulometric detection for pesticide residue analysis.	709
The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor.	751
An evaluation of the effects of the <i>Aedes aegypti</i> eradication program on wildlife in South Florida.	784
Chlorinated hydrocarbons as residues in foods.	792
Collaborative study of certain chlorinated organic pesticides in dairy products.	809

Section C: Pesticide residue content	810
Pesticide residues in commercial animal feeds.	811
Activation studies on Florisil.	815
Metals, other elements, and residues in foods.	831
Note on improved extraction for chlorinated pesticide residues in oysters.	833
Note on improved extraction for chlorinated pesticide residues in oysters.	834
Pesticides in people. Storage of DDT in the people of Israel.	866
Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs.	869
Pesticide residues.	873
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water.	1027
Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides.	1034
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography	1041
Infrared spectra of pesticides.	1042
HERBICIDES	
Changes in usage of plant protection preparations during the last fifteen years.	310
Influence of certain insecticides applied for the control of <i>Ostrinia nubilalis</i> Hbn. on the weeds of treated surfaces.	570
New contributions to the subject 'birds and agriculture'.	574
Herbicide-insecticide formulations for control of the American dog tick.	609
Survival of fish in 164 herbicides, insecticides, fungicides, wetting agents and miscellaneous substances.	882
Fundamental research is key to safe, effective pesticides.	1013
Heavy supply and low demand	1056
HERCULES AC-5722	
Hercules AC-5722 as a residual spray for adult mosquitoes.	88
HEREDITY	
Effects on resistance of exposure of houseflies to sub-lethal and partially lethal doses of DDT	217
WARF anti-resistant DDT selection and house fly crossresistance	247
Inheritance of DDT resistance in <i>Culex pipiens fatigans</i> Wiedemann	266
HETEROCYCLIC COMPOUNDS	
The feasibility of mass spectrometric methods in residue analysis	1005
HEXANE	
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water	1027
HIBERNATION	
Field tests for control of overwintered boll weevils.	209



# SUBJECT INDEX

## HILL REACTION

Field experiments on control of overwintered boll weevils. 397

## HILL REACTION

Effect of DDT on photosynthesis in certain varieties of barley. 975

## HIPPELATES

Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides. 213

Control of *Hippelates* gnats with soil treatments using organochlorine insecticides. 291

Soil treatments with insecticides for control of the eye gnats *Hippelates collusor* and *H. hermsi*. 292

Resistance to chlorinated hydrocarbon insecticides in the eye gnat, *Hippelates collusor*. 603

Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, *Hippelates collusor*. 613

## HIPPOLATES

Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 821

## HISTOLOGY

An epidemiologic application of the study of DDE levels in whole blood. 726

## HISTORY

The United States and malaria: Debits and credits. 294

## HOMOPTERA

A summary of forest and shade tree insect-disease conditions for Maine 1967. 4

## HONDURAS

Biology and control of *Dermatobia hominis* (L. Jr.) in Honduras (Diptera: Cuterebridae). 13

## HOOKE COMPOUND

Field tests of dichlorvos, General Chemical 4072, Hooker Compound, and synergized dDT against *Musca domestica*. 156

## HOPS

DDT: proposed establishment of pesticide and food additive tolerances. 861

DDT; establishment of pesticide and food additive tolerances. 862

## HOST RELATIONSHIPS

Insect tormentors of livestock: IV. The mites. 600

## HOUSEHOLD INSECTS

House fly pupation under baseboards. 611

## HOUSEHOLD PESTS

Insects and related pests of house plants; how to control them. 128

The significance of DDT in household and structural pest control - 1969. 635

## HOUSES

Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3

## HUMAN DISEASES

*Anopheles moucheti* in Cameroon. 168

Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273

The *Simulium* control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274

Importance of pesticides in preventive medicine. 280

Summary of recent abstracts. VI. Plague. 283

Selective control of *Simulium damnosum* and river management. 286

Malaria and victory in Vietnam. 288

Technical problems of malaria eradication in Africa. 289

Entomological factors in persisting transmission of malaria in eradication programs. 290

Effects of sublethal doses of DDT on the reproduction and susceptibility of *Culex pipiens* L. 303

Pesticide storage in human fat tissue. 588

Pesticides in people. Storage of DDT in the people of Israel. 866

Treatment of topical fungus infections with dichlorodiphenyltrichloroethane. Patent 3,389,049. 909

## HUMANS

DDT yes or no. 636

Insecticides in human fat in New Zealand. 703

DDT in humans and animals; determination of DDA in urine using an ion exchange resin. 721

Chlorinated insecticides in the body fat of people in the United States. 723

Chlorinated insecticides in the body fat of people in the United States. 724

An epidemiologic application of the study of DDE levels in whole blood. 726

Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743

Determination of DOT and related substances in human fat. 795

DDT storage in the U. S. population. (Abstract). 829

Search for new insecticides. 890

Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896

Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium...American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 949

## HUMIC ACIDS

Interaction of pesticides with natural organic material. 676

Adsorption of some pesticides on soils, clay minerals and humic acid. 791

## HUMIDITY

Controlling fluctuations of duration of developmental period in *Drosophila*. 172

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215

Effect of climatic factors on the susceptibility of insects to insecticides. 514

Effect of storage on cottonseed and cottonseed products. 621

## HYACINTH DOLICHOS

Pests of legume seed crops in north Queensland. 509

## HYDROCARBONS

Resistance to some chlorinated hydrocarbon insecticides in the bollworm, *Heliothis zea*. 95

Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312

The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 364

Control of boll weevils resistant to chlorinated hydrocarbons. 535

HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle. 637

Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690

Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747

Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840

## HYDROGEN

Synthetic routes to 1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane-2-d, deuterio-DDT. 304

## HYDROGEN-ION CONCENTRATION

The problem of the utilization of entomopathogenic microorganisms in combination with insecticides. 223

## HYDROLYSIS

Pesticide testing in dairy factory laboratories. 731

## HYDROXY-N-METHYL-CIS-CROTONAMIDE

DIMETHYL PHOSPHATE, 3- Status and control of the corn stem weevil in the Florida Everglades. 439

HYGIENE The toxicological effect on animals of mixtures of chlorophos and DDT. 927

## HYLEMYA BRASSICAE

Morphological-biological report of the cabbage maggot *Hylemya brassicae* (Bch.) and experiments in chemical control. 493

HYLEMYA PLATURA Seed-corn maggot resistance to aldrin in Illinois. 105

Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259

## HYLOBIUS

Insecticides in Norwegian forestry. 348

Insecticides in Finnish forestry. 443

HYLOTRUPES BAJULUS The old house borer in Eastern States. 38

HYMENOPTERA A summary of forest and shade tree insect-disease conditions for Maine 1967. 4

The old house borer in Eastern States. 38

Destruction of wasps. 40

HYPERA Setting up a method for control of clover weevils. 352

# SUBJECT INDEX

## INSECT CONTROL

- HYPERODES**  
Adjuvants in sprays for insect control on sweet corn. 414  
DDT spray formulations and dosages for control of corn stem weevil, *Hyperodes humilis*. 415
- HYPERODES HUMILIS**  
Status and control of the corn stem weevil in the Florida Everglades. 439
- ICERYA**  
Interference with the biological control of cotton-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350
- ICHNEUMONIDAE**  
Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- IDAHO**  
Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- IDIOCERUS**  
Chemical control of mango hoppers (*Idiocerus* spp.). 376
- ILLUSTRATIONS**  
Diseases and parasites of the rose. 322
- IMIDAN**  
Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347
- IMMUNITY**  
Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches. 109  
Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176  
Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257  
Summary of recent abstracts. VI. Plague. 283  
Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT. 304  
Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438  
DDT toxicity in rye (*Secale* spp.). 924  
Effect of DDT on photosynthesis in certain varieties of barley. 975
- INDIA**  
Studies on the age composition of *Anopheles culicifaces* populations in India at different phases of development of resistance to DDT. 20
- INDIANA**  
Problems in the control of mint insects. 401
- INDICATOR PLANTS**  
Water flora as indicators of irrigation water contamination by DDT. 675
- INDUSTRIAL MANAGEMENT**  
A good year for pesticide sales. 1055
- INDUSTRIAL WASTES**  
Estimation of DDT in factory waste. 1022
- INDUSTRY**  
Effects of 'the use of pesticides' from an industrial viewpoint. 1061
- INFECTIOUS DISEASES**  
Eradication versus control in communicable disease prevention. 298
- INFRARED RAYS**  
Infrared determination of DDT in dusts. 649  
Report on analytical methods for pesticide formulations. 1001
- INFRARED SPECTRA**  
Separation, identification, and measurement of DDT and its metabolites. 841  
DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880  
The estimation of mixtures of DDT and BHC isomers using infrared differential null-analysis. 991  
Infrared spectra of pesticides. 1042
- INHERITANCE**  
Inheritance of resistance to DDT in *Blattella germanica*. 69  
Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139  
Inheritance of DDT-RESISTANCE in *Musca domestica nebuld* Fabr. 187
- INJECTIONS**  
Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176  
Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967. 435  
DDT-C14 translocation in alfalfa. 537  
Secretion of DDT by lactating cows fed thyroprotein. 853
- INSECT ANATOMY**  
The affect of insecticides on insects. In: Eichler, W., ed., Handbook of insecticide knowledge. SB951.E4. 93
- INSECT BEHAVIOR**  
Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3  
Mechanisms of insect resistance are manifold and highly efficient. 23  
The old house borer in Eastern States. 38  
Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60  
Behavioural responses to contact with DDT in *Anopheles atroparvus*. 91  
The leatherjacket risk grows. 148  
Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Colombia. 206  
The brown-banded cockroach in Hamburg. 236  
The sitona weevil--a pest of lucerne (*Sitona humeralis*). 405  
Houseflies, blowflies and cluster flies. 610
- INSECT BIOCHEMISTRY**  
DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Search for new insecticides. 890  
Mode of action of insecticide synergists. 932
- INSECT BIOLOGY**  
Biology and control of native and introduced forest insects in the Nearctic Zone. 6  
Biology and control of *Dermatobia hominis* (L. Jr.) in Honduras (Diptera: Cuterebridae). 13  
Wasp nests. 45  
The biology of the European corn borer, *Ostrinia nubilalis* (Hubner), in Manitoba. 100  
Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control. 136  
The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147  
Studies on the mechanism of DDT-RESISTANCE in *Culex pipiens fatigans*. 253  
Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 371  
Biology and control of leopard moth on pear trees in the United Arab Republic. 393  
*Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396  
Raspberry moth. 468  
Capsid bugs on fruit. 469  
The damage brought about by *Phloeotribus*. 474  
Fifty years of research on the pink bollworm in the United States. 479  
The principle insect pests of beets and the means of their control in turkey. 482  
Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Bch.) and experiments in chemical control. 493  
Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516  
The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528  
Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533  
Silverfish: A taste for paper. 630
- INSECT BREEDING**  
Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139
- INSECT COLLECTING EQUIPMENT**  
Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3  
Mites collected from Douglas-fir foliage in Montana. 7
- INSECT CONTROL**  
Biology and control of native and introduced forest insects in the Nearctic Zone. 6  
Biology and control of *Dermatobia hominis* (L. Jr.) in Honduras (Diptera: Cuterebridae). 13  
New Jersey court upholds gypsy moth spraying. 22



# SUBJECT INDEX

## INSECT DISEASES

- The efficacy of a mixture of *Bacillus thuringiensis* Berl. and of DDT against *Agrotis ipsilon* Rott. (Noctuidae). 98
- Control of a corn stem weevil (*Hyperodes humilis*), and fall armyworm with DDT and parathion in South Florida. 102
- Specificity in insecticides. 103
- On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania. 106
- New horizons in the fight against insects. 180
- Field tests for control of overwintered boll weevils. 209
- Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*. 244
- Board lists precautions for forest spray programs. 306
- Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347
- An estimate of the area of Danish forestry which is treated with pesticides other than herbicides. 351
- Forest entomology. 353
- Chemical control of the tea tortrix (*Homona coffearia* Nietner). 384
- Safety of wildlife is important to planners of gnat-control program. 419
- Those hungry gypsies (Photo story). 423
- The European pine shoot moth; ecology and control in the Lake States. 465
- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487
- Insecticides and pest control. 494
- The influence of infestation by early shoot borer *Chilotranea infuscatellus* Sn. on shoot production and yield of sugarcane. 496
- Some recommendations for the control of perforators of seeds of Anonaceae (*Bephrata* sp. order Hymenoptera). 500
- Tick fever in poultry. 593
- New concepts for cattle tick control. 605
- Termite control measures in building construction. 624
- Silverfish: A taste for paper. 630
- Environmental pollution: Scientists go to court. 640
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936
- ### INSECT DISEASES
- The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Leptinotarsa decemlineata* Say. 83
- Search for new insecticides. 890

## INSECT ECOLOGY

- An ecological study of arthropod populations on apple in northeastern Wisconsin: insect species present. 16
- An ecological approach to the insecticide problem. 17
- Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99
- On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania. 106
- Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control. 136
- Biocology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza. 394
- Porina and grassgrubs put curbs on production. 420
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516

## INSECT EGGS

- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pesca and Versilia. 396
- Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503

## INSECT FLIGHT

- Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera). 523

## INSECT GENETICS

- Practical importance of resistance to insecticides in Anopheles. 72
- Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181
- Insecticide resistance in the house fly: Decreased rate of absorption Is the mechanism of action of a gene that acts as an intensifier of resistance. 182
- Action of DDT at an insect synapse. 208
- Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*. 244
- Insecticide-resistance in *Culex pipiens fatigans*. 245
- On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants. 246
- WARF anti-resistant: DDT selection and house fly crossresistance. 247
- Genetic studies on insecticide resistance. 248
- Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250
- Some new mutants and linkage groups of the house fly. 251
- Studies on the mechanism of DDT-RESISTANCE in *Culex pipiens fatigans*. 253
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Genetic factor controlling colour and its association with DDT sensitivity in the cabbage looper. 256

- Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257

- A genetic factor controlling color and its association with dDT sensitivity in the cabbage looper. 258

- Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259

- Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261

- A morphometric analysis of strains of *Drosophila melanogaster* differing in DDT-RESISTANCE. 262

- Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in *Culex pipiens fatigans* Wiedemann. 265

- Heterogeneity in the Trinidad DDT-RESISTANT strain and the QS susceptible strain of *Aedes aegypti* L. The isolation of highly resistant and highly susceptible substrains. 268

## INSECT HOSTS

- Utilization of DDT resistance as a means of investigating the possible existence of host-specific strains of the bollworm, *Heliothis zea*. 52

## INSECT IDENTIFICATION

- The old house borer in Eastern States. 38
- European pine shoot moth. 228
- The brown-banded cockroach in Hamburg. 236
- Capsid bugs on fruit. 469
- The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528

## INSECT METABOLISM

- Some properties of the microsomal system metabolizing DDT in *Triatoma infestans*. 33
- Absorption and metabolism of C14-labeled DDT by DDTsusceptible and DDT-RESISTANT pink bollworm adults. 59
- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Metabolism of insecticides by *Culex pipiens quinquefasciatus*, i. in vivo metabolism of DDT by larvae. 114
- Toxicology and physiology of DDT resistance in the German cockroach. 117
- Toxicity, pick-up and metabolism of p,p'-DDT and related compounds in *Culex pipiens fatigans* and *Aedes aegypti*. 130
- Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases. 138
- Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*. 146
- Metabolism of 14C-labelled DDT in the larvae, pupae and adults of *Drosophila melanogaster*. 163
- Separation and purification of DDT-degrading enzymes from the human body louse. 167
- The enzymatic in vitro degradation of DDT by susceptible and DDT-resistant body lice. 179

# SUBJECT INDEX

## INSECT POLLINATORS

Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths.	195
Studies on the metabolism of DDT in the desert locust by paper chromatography.	216
DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides.	254
<b>INSECT MIGRATION</b>	
Further experience obtained in studies on dispersal flights of <i>Meligethes aeneus</i> F., marked with P32 (Coleoptera).	523
<b>INSECT MORPHOLOGY</b>	
Linkage studies of aldrin resistance in <i>Blattella germanica</i> (L.).	159
Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of Nymphal <i>Triatoma infestans</i> .	229
The gypsy moth threat in America.	320
The damaging occurrence of <i>Aradus cinamomeus</i> Panz. in Sweden.	361
Rice leafhoppers.	477
The principle insect pests of beets and the means of their control in turkey.	482
Morphological-biological report of the cabbage maggot <i>Hylemia brassicae</i> (Bch.) and experiments in chemical control.	493
<b>INSECT MUTATION</b>	
Linkage studies of aldrin resistance in <i>Blattella germanica</i> (L.).	159
A preliminary report on mutations in the house fly.	264
<b>INSECT NAMES</b>	
The brown-banded cockroach in Hamburg.	236
<b>INSECT NUTRITION</b>	
DDT susceptibility of <i>Drosophila melanogaster</i> in relation to dietary amino nitrogen.	194
On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants.	246
Effects of soil insecticides on apple trees and resulting effect on mite nutrition.	504
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition.	505
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition.	506
Investigations on the biology and control of <i>Melolontha melolontha</i> in hazelnut plantations.	533
<b>INSECT OUTBREAK FORECASTING</b>	
The leatherjacket risk grows.	148
Recent developments in and future prospects for the chemical control of the rice stem borer in India.	497
<b>INSECT OUTBREAKS</b>	
Biology and control of native and introduced forest insects in the Nearctic Zone.	6

<b>INSECT PESTS</b>	
Mites collected from Douglas-fir foliage in Montana.	7
The old house borer in Eastern States.	38
Early season insects no problem for B. A. Jordan.	39
DDT resistance in <i>Oncopera</i> .	101
Insects and related pests of house plants; how to control them.	128
Research on bio-ecology of <i>Sitona crinitus</i> (Herbst) and method for chemical control.	136
The leatherjacket risk grows.	148
Southern tree chapter briefed on borer control.	158
Biology and control of the spittlebug <i>Prosapia bicincta</i> in coastal bermuda grass.	175
New strategy against the codling moth.	177
New horizons in the fight against insects.	180
On the use of <i>Bacillus thuringiensis</i> -insecticide combinations to control insect pests.	184
Michigan's priority war on mosquitoes.	204
The problem of the utilization of entomopathogenic microorganisms in combination with insecticides.	223
European pine shoot moth.	228
Insect control for garden vegetables.	311
Diseases and parasites of the rose.	322
Some pests of ornamental plants in Madras.	339
Double your cotton yield by spraying.	346
Insect pests of pulse crops.	355
The damaging occurrence of <i>Aradus cinamomeus</i> Panz. in Sweden.	361
Chemical control of mango hoppers ( <i>Idiocerus</i> spp.).	376
<i>Neodiprion taedae linearis</i> : A sawfly pest of loblolly and shortleaf pines.	383
Reducing DDT persistence.	388
Bloodworms- pests of rice.	442
The South African carnation roller moth <i>Epichoristodes acerbella</i> (Walk.) Diakonoff.	457
Maryland arborists discuss insect control.	458
Capsid bugs on fruit.	469
Fifty years of research on the pink bollworm in the United States.	479
The principle insect pests of beets and the means of their control in turkey.	482
Navy bean pests.	488
Apple chalcid, <i>Torymus varians</i> (Wlk.), (Hymenoptera: Torymidae), in Quebec.	503
The insects injurious to potatoes.	507

Pests of legume seed crops in north Queensland.	509
The cicadelle <i>Empoasca flavescens</i> and the grill of grapevines in the South-West of France.	528
Investigations on the biology and control of <i>Melolontha melolontha</i> in hazelnut plantations.	533
Bark beetles.	539
Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice.	608
Saving stored rice from attacks of insect pests.	628
Toxicity of DDT and related compounds to certain lepidopteran cotton insects.	961
<b>INSECT PHYSIOLOGY</b>	
Controlling wasps.	35
The old house borer in Eastern States.	38
Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug <i>Lygus hesperus</i> .	43
The influence of the fungus <i>Beauveria bassiana</i> Vuill. on the fertility and the diapause of <i>Lepidotarsa decemlineata</i> Say.	83
The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, <i>Musca domestica</i> L.	108
Toxicology and physiology of DDT resistance in the German cockroach.	117
Gas-liquid chromatography analysis of DDT metabolism in <i>Aedes aegypti</i> .	119
Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in <i>Triatoma infestans</i> .	146
New horizons in the fight against insects.	180
Physiological and genetical studies on resistance to DDT substitutes in <i>Aedes aegypti</i> .	181
Insecticide susceptibilities of <i>Phlebotomus papatasi</i> (Scopoli) from Egypt and the Sudan.	201
Studies on the Sitka spruce weevil, <i>Pissodes sitchensis</i> , in British Colombia.	206
Some physiological effects of sublethal doses of DDT on flour beetles.	219
Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of Nymphal <i>Triatoma infestans</i> .	229
Insecticide resistance in the home of <i>Culex pipiens fatigans</i> Wiedemann.	250
Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and <i>Culex tarsalis</i> .	261
The effects of various anesthetics on the action of DDT on <i>Anopheles</i> larvae.	302
Search for new insecticides.	890
Effect of insecticides on neurophysiological activity in insects.	950
<b>INSECT POLLINATORS</b>	
Setting up a method for control of clover weevils.	352



# SUBJECT INDEX

## INSECT POPULATION

### INSECT POPULATION

An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit.

15

### INSECT POPULATIONS

Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.

122

### INSECT PROTECTIVE DEVICES

Resistance to DDT isomers in *Culex pipiens fatigans*.

131

### INSECT REARING

Use of *Daphnia magna* for the microbioassay of pesticides. I. Development of standardized techniques for rearing *Daphnia* and preparation of dosage-mortality curves for pesticides.

9

Inheritance of DDT-RESISTANCE in *Musca domestica nebulosa* Fabr.

187

The influence of sublethal dosages of insecticides on the basal follicles of *Aedes aegypti* (L.). (abstract).

299

Fifty years of research on the pink bollworm in the United States.

479

The susceptibility of house flies reared under various photoperiods to insecticide residues.

748

DDT and related compounds in dog food and CSMA media used in insect rearing.

945

### INSECT REARING EQUIPMENT

Insecticide contamination of rooms and equipment used to rear the oriental fruit moth.

737

### INSECT TAXONOMY

Rice leafhoppers.

477

### INSECT TEMPERATURE

Temperature and the action of DDT on the nervous system of *Periplaneta americana* (L.).

80

### INSECT TRAPS

Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts.

3

The leatherjacket risk grows.

148

Review of classical malaria control measures.

271

Fifty years of research on the pink bollworm in the United States.

479

### INSECT VECTORS

Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2).

99

On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania.

106

*Anopheles moucheti* in Cameroon.

168

Low volume spraying by air to control mosquito larvae in California.

170

Michigan's priority war on mosquitoes.

204

Review of classical malaria control measures.

271

Practical importance of insecticide resistance for malaria eradication in tropical Africa.

273

The *Simulium* control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area.

274

Eradication of malaria and mosquito control in Italy.

279

Importance of pesticides in preventive medicine.

280

Prospects for the eradication of malaria in Algeria.

282

Summary of recent abstracts. VI. Plague.

283

Selective control of *Simulium damnosum* and river management.

286

Malaria and victory in Vietnam.

288

Technical problems of malaria eradication in Africa.

289

Entomological factors in persisting transmission of malaria in eradication programs.

290

The United States and malaria: Debts and credits.

294

Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis.

301

Effects of sublethal doses of DDT on the reproduction and susceptibility of *Culex pipiens* L.

303

Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT.

304

A new disease of bananas in the Cauca Valley: a bacteriosis.

326

Tomato spotted wilt (tomato spotted wilt virus).

327

Tomato yellow top.

328

Note on damage to grasses in the Peace River region by the spittlebug, *Philorhiza bilineata* Say, (Cercopidae: Hemiptera).

344

Factors affecting the appearance of holly oaks in Southern California.

367

Incidence of field spread of internal cork of sweet potato in insecticide-treated plots.

444

Controlling peach yellows in a peach breeding program.

480

New concepts for cattle tick control.

605

Herbicide-insecticide formulations for control of the American dog tick.

609

Houseflies, blowflies and cluster flies.

610

### INSECTICIDAL AEROSOLS

Studies on fine-particle, coarse-particle, and concentrated aerosols.

199

Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers.

222

DDT-AEROSOL against *Ixodes ricinus*.

293

Insecticide residue in foods subjected to aerosols under simulated warehouse conditions.

794

### INSECTICIDAL FILMS

A thermal preference method of bioassay of the toxicity of insecticidal films to house flies.

1047

### INSECTICIDAL PLANTS

Search for new insecticides.

890

### INSECTICIDE APPLICATION

The old house borer in Eastern States.

38

Insecticidal operations against chironomid midges along the Blue Nile.

56

The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract).

94

Topical application and insecticide resistance studies on the honey bee.

96

DDT resistance in *Oncopora*.

101

Carabids collected in a DDT-sprayed peach orchard in Ontario (Coleoptera: Carabidae).

112

Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control.

136

Fate of DDT and toxaphene applied topically to susceptible and resistant boll weevils.

143

Low volume spraying by air to control mosquito larvae in California.

170

The influence of site application on the toxicity of insecticides in red cotton bug, *Dysdercus cingulatus*, F.

190

The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland.

196

Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers.

222

European pine shoot moth.

228

Technique of continuous exposure for the determination of insecticide resistance in mosquito larvae.

281

Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis.

301

Double your cotton yield by spraying.

346

Early-season application of DDT for pink bollworm control.

375

Minimum number of insecticide applications for the control of the European corn borer on sweet corn in Quebec.

433

Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967.

435

Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin.

438

Essay on insecticidal treatments on the apple fruit fly, *Rhagoletis pomonella* (Walsh) in southwest Quebec.

484

Insecticides and pest control.

494

Stem applications of azodrin for control of the cotton fleahopper.

501

Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice.

608

DDT residues in mountain stream water as influenced by treatment practices.

647

University of Wisconsin scientists discuss insecticides and pollution.

695

# SUBJECT INDEX

## INSECTICIDE RESIDUES

- DDT residues on sweet corn ear tips and silks after treatment with dust, spray, or granular formulations. 759
- Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936
- Laboratory evaluation of DDT and phosphamidon on the western hemlock looper, *Lambdina fiscellaria lugubrosa* (Hulst). 940
- Pour-on treatments of DDT or toxaphene for horn fly control. 944
- Micronized insecticidal dusts for aircraft disinsectization. 951
- Theoretical and practical aspects of room spraying. 1046
- ### INSECTICIDE DEPOSITS
- Factors contributing to the loss of insecticide deposits on cattle. 832
- ### INSECTICIDE RESIDUES
- Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn. 21
- Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78
- The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94
- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 122
- Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126
- Stable fly tolerance to residues of DDT, dieldrin, malathion and diazinon. 129
- New horizons in the fight against insects. 180
- The effect of residual deposits of insecticides on the scorpion, *Centruroides vittatus*. 193
- Michigan's priority war on mosquitoes. 204
- A method for field detection of hornfly susceptibility to DDT residues. 207
- Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231
- Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. 313
- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424
- Insecticides and pest control. 494
- Pasture cockchafer control interim revised control recommendation. 526
- The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo e. erythrophthalmus* Linnaeus). 578
- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581
- Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues. 594
- New restrictions on use of DDT. 615
- Residual insecticides for use against tsetse flies in Rhodesia. 617
- Residues on oranges resulting from the use of DDT, parathion, phosdrin, and TDE for the control of orangeworms. 622
- Control of insecticide residues in produce. 626
- Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642
- Techniques and preliminary data of the movement of DDT and Zectran through a forest soil. 646
- DDT residues in mountain stream water as influenced by treatment practices. 647
- Pesticides and man's environment. 653
- Effect of soil cultivation, soil surface and water on the persistence of insecticidal residues in soils. 661
- On the distribution of pest control agents. 662
- The accumulation of <sup>36</sup>Cl ring-labeled DDT in a freshwater marsh. 663
- Effects of pesticides on wildlife. 664
- DDT: Criticism, curbs are on the upswing. 665
- The behavior of DDT and Zectran on a forest soil. 666
- Methods for extracting insecticides from soil. 669
- Methods for extracting insecticides from soil. 671
- Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 672
- Persistence of pesticides in orchards and orchard soils. 673
- Note on the effect of water on Soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others. 677
- Editorials. 680
- Corroborative study of certain chlorinated organic pesticides in dairy products. 685
- Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690
- Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon. 691
- The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692
- University of Wisconsin scientists discuss insecticides and pollution. 695
- Residue tolerances set for DDT in milk. 698
- Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues. 699
- Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content. 700
- Insecticides in human fat in New Zealand. 703
- DDT in fats on Antarctic animals. 704
- Insecticides in human fat in New Zealand. 705
- DDT problem at a glance. 706
- Secretion of DDT in milk by fresh cows. 707
- Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708
- Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography. 714
- Some observations on the effects of using organochlorine sprays in an orchard. 716
- Microcoulometric gas chromatography of pesticides. 718
- Problems with DDT in fish culture operations. 719
- Problems with DDT in fish culture operations. 720
- DDT in humans and animals; determination of DDA in urine using an ion exchange resin. 721
- Chlorinated insecticides in the body fat of people in the United States. 723
- Chlorinated insecticides in the body fat of people in the United States. 724
- Statistical study of parathion and DDT residues on apples. 725
- Co-distillation clean-up for DDT residues estimation. 729
- Persistence of DDT in crayfish in a natural environment. 730
- DDT residues and metabolites in Canadian Atlantic coast fish. 734
- Pesticide residue in freshwater fish oils and meals. 735
- Pesticides and the soil fauna; effects of Aldrin and DDT in an arable field. 740
- Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741
- Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 744
- The susceptibility of house flies reared under various photoperiods to insecticide residues. 748
- Retention of DDT and DDE by the bovine. 749
- An investigation of the oscillopolarography of DDT and certain analogs. 750



# SUBJECT INDEX

## INSECTICIDE RESISTANT INSECTS

DDT residues on sweet corn ear tips and silks after treatment with dust, spray, or granular formulations. 759

DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT prills and DDT superphosphate. (abstract). 760

The effect of even or uneven applications of DDT prills to pasture on DDT residues in stock. 761

Excretion of DDT by migratory birds. 762

Distribution of insecticides sprayed by airplane on an irrigated corn plot. 764

DDT residues on New York dairy farms following the gypsy moth eradication programme. 766

Response of robins to DDT and methoxychlor. 767

Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 768

Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769

Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770

Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 771

Field weathering of toxaphene and chlordane. 776

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781

Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782

Pesticides: Present levels in food and possible sources of contamination. 785

Reproduction in brook trout (*Salvelinus fontinalis*) fed sublethal concentrations of DDT. 790

Determination of DDT and related substances in human fat. 795

Metabolism of DDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802

Effect of thyroprotein and a low-energy ration on removal of DDT from lactating dairy cows. 805

DDT and dieldrin residues on pasture following dusting and spraying. 808

DDT. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 812

DDT. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. ii. insecticides. 813

Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820

Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 821

DDT residues absorbed from organic detritus by fiddler crabs. 823

DDT storage in the U. S. population. (Abstract). 829

Note on improved extraction for chlorinated pesticide residues in oysters. 833

Note on improved extraction for chlorinated pesticide residues in oysters. 834

DDT residues in beef cows fed apple pomace. 835

Distribution of p,p'-DDT residues in adipose and muscle tissues of beef cattle. 836

Rapid screening method for DDT in milk with gas chromatography. 838

Rapid screening method for DDT in milk with gas chromatography. 839

Separation, identification, and measurement of DDT and its metabolites. 841

DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843

DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844

Long-term movement of DDT applied to soil for termite control. 846

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract). 849

Residues in vegetable crops following soil applications of insecticides. 851

Pesticide residues in dairy produce. 856

Organochlorine pesticides in Antarctica. 857

DDT. proposed establishment of pesticide and food additive tolerances. 861

DDT; establishment of pesticide and food additive tolerances. 862

Proposed reduction of tolerances in or on raw agricultural commodities. 863

Toxic residues in marine foods. 864

Distribution of heptachlor residues in pond ecosystems in southwestern Virginia. 868

Pesticide residues. 873

Insecticide residues in milk: DDT residues in milk from dairy cows fed low levels of DDT in their daily rations. 879

Kinetics of DDT in a marine food chain. 893

Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896

The early effects of low DDT doses on the nervous system in animal experiments. 901

Pharmacodynamic study of DDT in cockerels. 905

Insecticide-resistant fishes: A potential hazard to consumers. 907

Response of robins to DDT and methoxychlor. 919

Residues in the body fat of steers fed kelthane in their ration. (Abstract). 937

DDT residues in pacific sea birds: a persistent insecticide in marine food chains. 942

Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium...American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. robert J. Gould, ed. 949

Role of intestinal microflora in the degradation of DDT by rainbow trout (*Salmo gairdneri*). 958

Respiratory exposure of dairy animals to pesticides. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. Gould, ed. 960

Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006

Separation and measurement of perthane, DDD (TDE) and DDT in leafy vegetables by electron-capture gas chromatography. 1009

Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils. 1012

Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017

Estimation of DDT in factory waste. 1022

Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026

Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029

## INSECTICIDE RESISTANT INSECTS

Studies on the age composition of *Anopheles culicifacies* populations in India at different phases of development of resistance to DDT. 20

Dehydrochlorination and DDT-RESISTANCE in *Aedes aegypti*. 26

Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil. 28

How to control bed bugs. 34

The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenee) (*Lepidoptera: Noctuidae*) to several contact insecticides. 37

Superflies beat dichlorodiphenyltrichloroethane. 41

DDT resistance in honey bees. 42

Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug *Lygus hesperus*. 43

Resistance to organochlorine insecticides in the tuber flea beetle, *Epitrix tuberis* Gent. (*Coleoptera: Chrysomelidae*), in British Columbia. 44

Resistance to DDT in the adult codling moth and reference curves for guthion and carbaryl. 48

Mechanisms of insect resistance to the chlorohydrocarbon insecticides. 51

Utilization of DDT resistance as a means of investigating the possible existence of host-specific strains of the bollworm, *Heliothis zea*. 52

Resistance to DDT in *Heliothis virescens*. 53

DDT resistance in *Heliothis zea*. 54

DDT-RESISTANCE in *Heliothis zea*. 55

- The response of the labellar taste receptors of DDT-RESISTANT and non-resistant houseflies (*Musca domestica*) to DDT. 57
- Absorption and metabolism of C14-labeled DDT by DDT-susceptible and DDT-RESISTANT pink bollworm adults. 59
- The insecticidal potency of gamma-BHC and the chlorinated cyclodiene compounds and the significance of resistance to them. 62
- Pink bollworm resistance to DDT in the Laguna area of Mexico. 65
- Internal DDE production by normal and DDT-resistant larvae of *Aedes aegypti*. 66
- Laboratory studies on resistance of the body louse to insecticides. 67
- Inheritance of resistance to DDT in *Blattella germanica*. 69
- Resistance to Telodrin in the German cockroach, *Blattella germanica*. 70
- A comparison of some house fly bioassay methods. 74
- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Causes of resistance to DOT in a diazinon-selected and a DDT-SELECTED strain of house flies. 82
- Comparison of sterols in resistant and susceptible houseflies, *Musca domestica*. 85
- Sensitivity to the soluble heat-stable toxin of *Bacillus thuringiensis* of strains of *Musca domestica* tolerant to chemical insecticides. 89
- An analysis of house fly resistance to insecticides in California. 90
- Resistance to some chlorinated hydrocarbon insecticides in the bollworm, *Heliothis zea*. 95
- Dieldrin-resistance in a strain of *Aedes aegypti* (L.) from Puerto Rico. 97
- Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99
- Seed-corn maggot resistance to aldrin in Illinois. 105
- The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, *Musca domestica* L. 108
- DDT-RESISTANCE in two strains of *Culex pipiens pipiens* Linnaeus from New Jersey. 111
- The susceptibility to insecticides of populations of *Aedes aegypti* from Queensland, Australia. 113
- The mechanism of DDT resistance in the spotted root maggot *Euxesta notata*. 116
- Toxicology and physiology of DDT resistance in the German cockroach. 117
- The effect of larval density on mortality of *Culex pipiens fatigans* due to DDT and dieldrin. 118
- Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126
- Resistance to DDT isomers in *Culex pipiens fatigans*. 131
- Persistence of resistant populations after the relaxation of the selection pressure. 133
- Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases. 138
- Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139
- Fate of DDT and toxaphene applied topically to susceptible and resistant boll weevils. 143
- DDT-dehydrochlorinase. 144
- Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*. 146
- Joint action of ddt-CONTAINING insecticide mixtures against ddt-RESISTANT pink bollworms. 149
- Bollworm and tobacco budworm resistance to several insecticides in the Lower Rio Grande Valley of Texas. 150
- Rate of increase in resistance to DDT in pink bollworm adults. 151
- Investigations of pink bollworm resistance to DDT in Mexico and the United States. 152
- Prolonged resistance in the house fly and bed bug. 154
- The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161
- Susceptibility of mosquitoes to silica gel insecticides. 164
- Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166
- Controlling fluctuations of duration of developmental period in *Drosophila*. 172
- New strategy against the codling moth. 177
- Some biological comparisons of resistant and nonresistant strains of the German cockroach, *Blattella germanica*. 178
- The enzymatic in vitro degradation of DDT by susceptible and DDT-resistant body lice. 179
- Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181
- Inheritance of DDT-RESISTANCE in *Musca domestica* nebulosa Fabr. 187
- Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L. 189
- Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192
- Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths. 195
- The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland. 196
- A gynandromorph of the German cockroach, *Blattella germanica*. 197
- The group effect in the tests on insecticide resistance in *Aedes aegypti*. 198
- Antiresistant DDT continues to offer superior fly control. 202
- Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire. 203
- A method for field detection of hornfly susceptibility to ddt residues. 207
- Apparent DDT tolerance in an aquatic insect disproved by test. 214
- Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215
- Effects on resistance of exposure of houseflies to sub-lethal and partially lethal doses of DDT. 217
- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of Nymphal *Triatoma infestans*. 229
- Relative susceptibility of salt-marsh mosquitoes from Georgia and Florida to insecticides. 233
- Effectiveness of WARF Antiresistant as an additive to DDT for control of resistant house flies. 237
- Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240
- Dieldrin and DDT resistance of *Culex pipiens fatigans* in Thailand. 241
- The susceptibility of various species of mosquitoes to DDT and dieldrin in Thailand. 242
- Peritrophic membrane as a vehicle for DDT and DDE excretion in *Aedes aegypti* larvae. 243
- Insecticide-resistance in *Culex pipiens fatigans*. 245
- On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants. 246
- WARF anti-resistant: DDT selection and house fly crossresistance. 247
- Genetic studies on insecticide resistance. 248
- Development of DDT resistance in certain mayflies in New Brunswick. 249
- Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250
- Some new mutants and linkage groups of the house fly. 251
- Studies on the mechanism of DDT-RESISTANCE in *Culex pipiens fatigans*. 253
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Carbamate and phosphate resistance in adult granary weevils. 255
- Genetic factor controlling colour and its association with DDT sensitivity in the cabbage looper. 256
- Genetics of cyclodiene-insecticide resistance in the seed-corn maggot. 259
- Two types of sesamex-suppressible resistance in the housefly. 260



**INSECTICIDE SUSCEPTIBLE INSECTS**

Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and <i>Culex tarsalis</i> .	261
A morphometric analysis of strains of <i>Drosophila melanogaster</i> differing in DDT-RESISTANCE.	262
Genetical linkage relationships of DDT-RESISTANCE and dieldrin-resistance in <i>Culex pipiens fatigans</i> Wiedemann.	265
Inheritance of dDT resistance in <i>Culex pipiens fatigans</i> Wiedemann.	266
Studies on the development to DDT and malathion in house flies.	267
Heterogeneity in the Trinidad DDT-RESISTANT strain and the QS susceptible strain of <i>Aedes aegypti</i> L. The isolation of highly resistant and highly susceptible substrains.	268
The susceptibility of <i>Culex pipiens molestus</i> forsk in Israel to several insecticides in 1958-1960 and in 1965.	269
<i>Aedes aegypti</i> in the Western Pacific region.	272
Practical importance of insecticide resistance for malaria eradication in tropical Africa.	273
Results of tests of sensitivity to insecticides of <i>Anopheles</i> adults in rumania.	275
Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies.	276
Responses of <i>Aedes aegypti</i> (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion.	278
Technique of continuous exposure for the determination of insecticide resistance in mosquito larvae.	281
The status of insecticide resistance in populations of <i>Culex pipiens fatigans</i> Wiedemann (Diptera: Culicidae) from Queensland.	284
Resistance of <i>Aedes taeniorhynchus</i> (Wiedemann) to malathion.	287
Technical problems of malaria eradication in Africa.	289
Entomological factors in persisting transmission of malaria in eradication programs.	290
The United States and malaria: Debits and credits.	294
Seasonal variations in the susceptibility of <i>Culex pipiens</i> L. to DDT and dieldrin.	295
Susceptibility to insecticides of certain anophelines according to the time of catch and testing.	296
Susceptibility studies on <i>Anopheles culicifacies</i> with DDT and dieldrin in Gujarat State, India.	297
Effects of sublethal doses of DDT on the reproduction and susceptibility of <i>Culex pipiens</i> L.	303
Resistance: A discussion of its impact on plant protection.	307
Organising an eradication programme for <i>Aedes aegypti</i> in the USA.	308

Resistance to organochlorine insecticides in the tuber flea beetle, <i>Epithrix tuberis</i> Gent (Coleoptera: Chrysomelidae), in British Columbia.	349
Reducing DDT persistence.	388
Development of resistance to DDT by the apple maggot, <i>Rhagoletis pomonella</i> .	450
DDT resistant codling moths on pears in California.	455
Effect of climatic factors on the susceptibility of insects to insecticides.	514
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California.	521
Cotton pests exhibit resistance to DDT.	563
Field studies of house fly resistance to organophosphorus insecticides.	604
Search for new insecticides.	890
Penetration and metabolism of DDT in resistant and susceptible house flies and the effect on latent toxicity.	948
The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, <i>Heliothis virescens</i> (F.).	957
Antiresistant-DDT available from Penick and General Chemical.	979
Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT- and parathion-resistant house-flies.	1014
<b>INSECTICIDE SUSCEPTIBLE INSECTS</b>	
Some biological comparisons of resistant and nonresistant strains of the German cockroach, <i>Blattella germanica</i> .	178
A method for selection for DDT-susceptibility.	220
<b>INSECTICIDE SYNERGISTS</b>	
Toxicological studies on a beetle, <i>Alphitobius laevigatus</i> (F.). V. Joint actions of some pairs of like and unlike toxicants.	25
Specificity in insecticides.	103
The effects of various anesthetics on the action of DDT on <i>Anopheles</i> larvae.	302
Mode of action of insecticide synergists.	932
On the toxicology of Pyrethrum to warm blooded animals.	1030
<b>INSECTICIDE TRANSLOCATION</b>	
Translocation of DDT and heptachlor in soybeans.	739
<b>INSECTICIDES</b>	
The selective control of simulium larvae by particulate insecticides and its significance in river management.	2
The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	19
Effect of DDT poisoning on the longevity and fecundity of the pink bollworm.	29
How to control bed bugs.	34
Controlling wasps.	35

The relative susceptibility of the larvae of <i>Spodoptera mauritia acronyctoides</i> (Guenee) (Lepidoptera: Noctuidae) to several contact insecticides.	37
The old house borer in Eastern States.	38
Early season insects no problem for B. A. Jordan.	39
Superflies beat dichlorodiphenyltrichloroethane.	41
Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal <i>Triatoma infestans</i> .	77
Residual effect of a number of insecticides on adults of the carabid <i>Pseudophonus rufipes</i> (Dej.).	78
Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles.	87
An analysis of house fly resistance to insecticides in California.	90
Pyridine composition and method for attracting insects. patent 3,325,355.	92
The affect of insecticides on insects. In: Eichler, W., ed., Handbook of insecticide knowledge. SB951.E4.	93
Resistance to some chlorinated hydrocarbon insecticides in the bollworm, <i>Heliothis zea</i> .	95
The efficacy of a mixture of <i>Bacillus thuringiensis</i> Berl. and of DDT against <i>Agrotis ipsilon</i> Rott. (Noctuidae).	98
Specificity in insecticides.	103
Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm.	104
Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches.	109
DDT-RESISTANCE in two strains of <i>Culex pipiens pipiens</i> Linnaeus from New Jersey.	111
The susceptibility to insecticides of populations of <i>Aedes aegypti</i> from Queensland, Australia.	113
Metabolism of insecticides by <i>Culex pipiens quinquefasciatus</i> . i. in vivo metabolism of DDT by larvae.	114
Toxicology and physiology of DDT resistance in the German cockroach.	117
The effect of larval density on mortality of <i>Culex pipiens fatigans</i> due to DDT and dieldrin.	118
Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.	122
Temperature effects on the toxicity of five insecticides against five species of stored-product insects.	125
Resistance to DDT isomers in <i>Culex pipiens fatigans</i> .	131
Persistence of resistant populations after the relaxation of the selection pressure.	133
Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases.	138

- Biological interaction between plasticizers and insecticides. 142
- The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147
- Southern tree chapter briefed on borer control. 158
- Linkage studies of aldrin resistance in *Blattella germanica* (L.). 159
- The influence of three insecticides on predation of the pear psylla, *Psylla pyricola*. 160
- The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161
- Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166
- Anopheles moucheti* in Cameroon. 168
- The determination of the insecticidal activity of an 8 year old sample of DDT by biological method. 174
- Evidence of a nonspecific type resistance to insecticides by a resistant strain of the tobacco budworm. 176
- New strategy against the codling moth. 177
- Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182
- On the use of *Bacillus thuringiensis*-insecticide combinations to control insect pests. 184
- Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L. 189
- The influence of site application on the toxicity of insecticides in red cotton bug, *Dysdercus cingulatus*, F. 190
- The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland. 196
- Insecticide susceptibilities of *Phlebotomus papatasi* (Scopoli) from Egypt and the Sudan. 201
- Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire. 203
- Michigan's priority war on mosquitoes. 204
- Some physiological effects of sublethal doses of DDT on flour beetles. 219
- Variability in insecticide tolerance of eighteen honey-bee colonies. 221
- The problem of the utilization of entomopathogenic microorganisms in combination with insecticides. 223
- Insecticide-cytoplasmic interactions in insects and vertebrates. 224
- Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa. 230
- Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238
- Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240
- WARF anti-resistant: DDT selection and house fly crossresistance. 247
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277
- Importance of pesticides in preventive medicine. 280
- Malaria and victory in Vietnam. 288
- Entomological factors in persisting transmission of malaria in eradication programs. 290
- Soil treatments with insecticides for control of the eye gnats *Hippelates collusor* and *H. hermsi*. 292
- Synthetic routes to 1,1,1-trichloro-2,2-Bis(p-chlorophenyl) ethane-2-d, deuterio-DDT. 304
- Changes in usage of plant protection preparations during the last fifteen years. 310
- Tomato yellow top. 328
- Some pests of ornamental plants in Madras. 339
- Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341
- Double your cotton yield by spraying. 346
- Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347
- Insecticides in Norwegian forestry. 348
- Forest entomology. 353
- Insect pests of pulse crops. 355
- Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365
- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 371
- Chemical control of the tea tortrix (*Homona coffearia* Nietner). 384
- Biology and control of leopard moth on pear trees in the United Arab Republic. 393
- Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398
- Alternatives to DDT for the control of the pea moth on dry harvesting peas. 403
- Experiments on the insecticidal control of *Oxyancus fuscomaculatus* Walker (Lepidoptera: Hepialidae). 412
- Indications on plant care for olive crop cultivation. 430
- Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967. 434
- Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967. 435
- Status and control of the corn stem weevil in the Florida Everglades. 439
- Bloodworms- pests of rice. 442
- Insecticides in Finnish forestry. 443
- Developments in insecticide control of the rice stem borer in Japan. 445
- Maryland arborists discuss insect control. 458
- The oriental fruit moth and its control. 463
- The codling moth and its control. 464
- The damage brought about by *Phloeotribus*. 474
- Fifty years of research on the pink bollworm in the United States. 479
- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487
- Navy bean pests. 488
- Insecticides and pest control. 494
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506
- Pests of legume seed crops in north Queensland. 509
- Chemical control of *Drosicha mangiferae* (Green), a serious pest of *Citrus* spp. in Madhya Pradesh. 510
- The reduction of insect-caused apical seediness in strawberries. 511
- Effect of climatic factors on the susceptibility of insects to insecticides. 514
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- Don't take lightly these brinjal borers. 518
- The cicadelle *Empoasca flavescens* and the grill of grapevines in the South-West of France. 528
- DDT-C14 translocation in alfalfa. 537
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569
- Influence of certain insecticides applied for the control of *Ostrinia nubilalis* Hbn. on the weeds of treated surfaces. 570
- The effect of DDT on reproduction in mice. 577
- Relation between DDT in diets of laying birds and viability of their eggs. 582
- Protein-deficient diet and DDT toxicity. 587
- The effect of DDT on reproduction in mice. 598
- The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia. 599
- Insect tormentors of livestock: III. Fleas and ticks. 601
- New concepts for cattle tick control. 605
- Herbicide-insecticide formulations for control of the American dog tick. 609



# SUBJECT INDEX

## INSECTS

Termite control measures in building construction. 624

Contamination of bagged whole ginger after surface treatment with two synthetic contact insecticides. 627

Saving stored rice from attacks of insect pests. 628

Some insecticidal trials for the protection of til seeds in storage. 629

HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle. 637

Predicting and measuring the solubility of p,p'-DDT in water. 638

Effects on wild young salmon of spraying DDT over New Brunswick forests. 644

Water pesticides. 2. 674

Water flora as indicators of irrigation water contamination by DDT. 675

University of Wisconsin scientists discuss insecticides and pollution. 695

DDT in fats on Antarctic animals. 704

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

Insecticide contamination of rooms and equipment used to rear the oriental fruit moth. 737

Effects on wild young salmon of spraying DDT over New Brunswick forests. 744

Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747

Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agriculture commodities. DDT. 754

Degradation of DDT in Atlantic salmon (*Salmo salar*). 755

DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT prills and DDT superphosphate. (abstract). 760

Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769

Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 771

Behavior of DDT in potatoes during commercial and home preparation. 779

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784

Chlorinated hydrocarbons as residues in foods. 792

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796

Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840

DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880

Survival of fish in 164 herbicides, insecticides, fungicides, wetting agents and miscellaneous substances. 882

Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888

Search for new insecticides. 890

Effects of certain insecticides on earthworms. 903

Insecticide-resistant fishes: A potential hazard to consumers. 907

Degradation and disappearance of ortho, para isomer of technical DDT in living and dead avian tissues. 910

Evaluation of new insecticides for control of onion thrips. 918

Response of robins to DDT and methoxychlor. 919

Dynamics of organochlorine insecticides in vertebrates and ecosystems. 943

The metabolism of contact insecticides in stored grains. 946

Effect of insecticides on neurophysiological activity in insects. 950

Micronized insecticidal dusts for aircraft disinsectization. 951

Correlation between laboratory and field data on testing insecticides. 952

Noteworthy poisons which are pesticides. 953

Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of *Phaseolus aureus* (green gram). 971

DDT - type compounds: Separation and identification by a system combining thin layer chromatography, gas chromatography, and infrared spectroscopy. 983

Pesticides' unsung assistants. 1000

The optimum size for insecticide spray droplets. 1003

Simultaneous quantitative determination of lindane and DDT gas chromatography. 1010

The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography. 1011

Photochemical decomposition of DDT by a free-radical mechanism. 1016

Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027

Evaluation of extraction and cleanup methods for analysis of DDT and DDE in green alfalfa. 1029

On the toxicology of Pyrethrum to warm blooded animals. 1030

**INSECTS**

Action of DDT at an insect synapse. 208

Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields. 741

Evaluation of Shell SD-8447 for control of two sweet corn insects. 963

Theoretical and practical aspects of room spraying. 1046

**INTEGRATED CONTROL (INSECTS)**

The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Lepidoptarsa decemlineata* Say. 83

The problem of the utilization of entomopathogenic microorganisms in combination with insecticides. 223

**INTERNAL CORK VIROSIS**

Incidence of field spread of internal cork of sweet potato in insecticide-treated plots. 444

**INTESTINES**

Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711

Role of intestinal microflora in the degradation of DDT by rainbow trout (*Salmo gairdneri*). 958

**INVERTEBRATES**

An autoradiographic study of invertebrate uptake of DDT-CL36. 232

**ION EXCHANGE RESINS**

DDT in humans and animals; determination of DDA in urine using an ion exchange resin. 721

**IONS**

Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA. 205

**IRAQ**

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341

**IRON OXIDES**

Thermal decomposition of DDT by some soil constituents. 982

**IRRIGATION**

Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 424

Water flora as indicators of irrigation water contamination by DDT. 675

Distribution of insecticides sprayed by airplane on an irrigated corn plot. 764

**ISOBENZAN**

Compatibility studies on *Bacillus thuringiensis* Berliner with chlorinated hydrocarbons. 329

**ISODRIN**

Insecticide studies of the maize stalk borer, *Busseola fusca* (Fuller), in East Africa. 230

A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548

**ISOMERISM**

The estimation of mixtures of DDT and BHC isomers using infrared differential null-analysis. 991

**ISOMERS**

Degradation and disappearance of ortho, para isomer of technical DDT in living and dead avian tissues. 910

**ISOPROPYL-3-METHYLPYRAZOL-5-YL DIMETHYLCARBAMATE, 1-DDT-DEHYDROCHLORINASE** activity in house fly strains resistant to various groups of insecticides. 254

- ISOPROPYLPHENYL METHYL-CARBA-MATE-M**  
Hercules AC-5722 as a residual spray for adult mosquitoes. 88
- ISOTOPES**  
New strategy against the codling moth. 177
- IXODES PERSULCATUS**  
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis. 301
- IXODES RICINUS**  
DDT-AEROSOL against *Ixodes ricinus*. 293
- IXODIDAE**  
DDT-AEROSOL against *Ixodes ricinus*. 293  
Insect tormentors of livestock: III. Fleas and ticks. 601
- IXODIDES**  
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis. 301  
Tick fever in poultry. 593  
New concepts for cattle tick control. 605
- KALE**  
Comparison of five extraction procedures for the recovery of DDT residues in field-treated collards. 758  
Field weathering of toxaphene and chlordane. 776
- KEPONE**  
European corn borer control in potatoes. 362  
DDT resistant codling moths on pears in California. 455
- KIDNEY BEANS**  
Navy bean pests. 488
- KIDNEYS**  
Protein-deficient diet and DDT toxicity. 587
- KINASES**  
The induction of NAD kinase by DDT in *Triatoma infestans*. 32
- LABORATORIES**  
Pesticide testing in dairy factory laboratories. 731
- LABORATORY ANIMALS**  
Effects of DDT on brain electrical activity in awake, unrestrained rats. 596  
The effect of DDT in the diet on the resting and loading electrocorticogram record. 906
- LABORATORY DATA**  
Correlation between laboratory and field data on testing insecticides. 952
- LABORATORY INSECTS**  
Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139
- LACTATION**  
Effect of thyroprotein and a low-energy ration on removal of DDT from lactating dairy cows. 805
- LAEMOPHLOEUS**  
Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minutus* Oliv. 18
- LAKES**  
Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- LAMPRONIA RUBIELLA**  
Raspberry moth. 468
- LAND IMPROVEMENT**  
Results of tests with *Bacillus thuringiensis* Berliner against gypsy moth larvae. 63
- LAPHYGMA**  
DDT spray formulations and dosages for control of corn stem weevil, *Hyperodes humilis*. 415  
Treated bags for control of the corn earworm and fall armyworm. 552
- LARVAE**  
The selective control of simuliid larvae by particulate insecticides and its significance in river management. 2  
Some properties of the microsomal system metabolizing DDT in *Triatoma infestans*. 33  
The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenee) (Lepidoptera: Noctuidae) to several contact insecticides. 37  
Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49  
Utilization of DDT resistance as a means of investigating the possible existence of host-specific strains of the bollworm, *Heliothis zea*. 52  
Antifeeding effect of DDT on bollworm and tobacco budworm larvae. 60  
Results of tests with *Bacillus thuringiensis* Berliner against gypsy moth larvae. 63  
Internal DDE production by normal and DDT-resistant larvae of *Aedes aegypti*. 66  
The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Lepidoptarsa decemlineata* Say. 83  
A possible explanation of the chemical control of simuliid larvae. 86  
The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94  
The efficacy of a mixture of *Bacillus thuringiensis* Berl. and of DDT against *Agrotis ipsilon* Rott. (Noctuidae). 98  
DDT resistance in *Oncopera*. 101  
Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm. 104  
The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, *Musca domestica* L. 108  
Metabolism of insecticides by *Culex pipiens quinquefasciatus*. i. in vivo metabolism of DDT by larvae. 114  
The effect of larval density on mortality of *Culex pipiens fatigans* due to DDT and dieldrin. 118  
Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119  
Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva. 134  
The leatherjacket risk grows. 148  
The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161  
Controlling fluctuations of duration of developmental period in *Drosophila*. 172  
The toxicological action of three organophosphorus insecticides with three species of mosquito larvae. 200  
Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of Nymphal *Triatoma infestans*. 229  
Toxicological action of DDT on three species of mosquito larvae. 234  
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235  
Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240  
Peritrophic membrane as a vehicle for DDT and DDE excretion in *Aedes aegypti* larvae. 243  
Insecticide resistance in the home of *Culex pipiens fatigans* Wiedemann. 250  
The effects of various anesthetics on the action of DDT on *Anopheles* larvae. 302  
*Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396  
Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 447  
The codling moth and its control. 464  
Recent developments in and future prospects for the chemical control of the rice stem borer in India. 497  
Seasonal history and response to insecticides of *Heliothis* species on cotton. 559  
A merganser die-off associated with larval eustrongylids. 589  
Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888  
Effects of DDT, as used in black fly larval control, on stream arthropods. 922  
The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957
- LARVICIDES**  
Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126  
Low volume spraying by air to control mosquito larvae in California. 170  
The Simulium control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274  
The United States and malaria: Debits and credits. 294  
Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708
- LASPEYRESIA NIGRICANA**  
Alternatives to DDT for the control of the pea moth on dry harvesting peas. 403



# SUBJECT INDEX

## LASPEYRESIA POMONELLA

### LASPEYRESIA POMONELLA

Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths.

195

The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland.

196

Natural enemies of *Laspeyresia pomonella* L. (Lepidoptera, Tortricidae) and the effect of chemical treatment on their useful activity.

399

### LAUMONTITE

Retention and volatilization of lindane and DDT in presence of organic colloids isolated from soils and Leonardite.

828

### LEAD ARSENATE

Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*.

456

Countering the castor semi-looper.

483

Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples.

859

### LEAVES

Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage.

231

DDT resistance in barley, *Hordeum vulgare* L. Induced mutants for resistance.

319

A leaf disorder of cacao in Costa Rica.

330

### LEGISLATION

Michigan's priority war on mosquitoes.

204

Those hungry gypsies (Photo story).

423

New restrictions on use of DDT.

615

Control of insecticide residues in produce.

626

HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle.

637

Environmental pollution: Scientists go to court.

640

Pesticides and man's environment.

653

DDT: Criticism, curbs are on the upswing.

665

Careful application pays off by reducing drift and residue problems.

800

### LEGUMES

Insect pests of pulse crops.

355

Pests of legume seed crops in north Queensland.

509

### LEMA

Laboratory studies of three-lined potato beetle and control with various insecticides.

446

### LEPIDOPTERA

A summary of forest and shade tree insect-disease conditions for Maine 1967.

4

Control of grass grub and porina.

395

Toxicity of DDT and related compounds to certain lepidopteran cotton insects.

961

### LEPISMA SACCHARINA

Silverfish: A taste for paper.

630

### LEPTINOTARSA DECEMLINEATA

The influence of the fungus *Beauveria bassiana* Vuill. on the fertility and the diapause of *Leptinotarsa decemlineata* Say.

83

HCH and DDT is forbidden; substituting chlorinated hydrocarbons in the control of Colorado potato beetle.

637

### LETHAL FACTOR

Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae).

257

### LEUCINE

DDT-INDUCED metabolic changes in rat liver.

947

### LEUCINODES ORBONALIS

Don't take lightly these brinjal borers.

518

### LIFE CYCLE

Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza.

394

Houseflies, blowflies and cluster flies.

610

Silverfish: A taste for paper.

630

### LIGHT

Change in the photic reaction due to DDT in the grain weevil, *Sitophilus granarius* (L.) (Coleoptera: Curculionidae).

47

Effect of climatic factors on the susceptibility of insects to insecticides.

514

### LIGHT TRAPS

Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza.

394

Pesticide residues - USDA'S position.

860

### LIGHTING

Oviposition in DDT resistant and susceptible strains of *Aedes aegypti* (L.) in relation to light preference.

239

### LIMA BEANS

Effect of lygus bug control on yield of lima beans.

459

The effect of Lygus bug control on the yield of lima beans.

460

Field experiments on the insecticidal control of insects attacking peas, snap and lima beans.

499

Field tests with various insecticides for the control of Lygus bugs and the corn earworm on lima beans.

522

### LIMONIUS CALIFORNICUS

Experiments on control of the sugar-beet wireworm in southern California bean fields.

565

### LINDANE

Use of *Daphnia magna* for the microbioassay of pesticides. II. Comparison of microbioassay with gas chromatography for analysis of pesticide residues in plant extracts.

8

The old house borer in Eastern States.

38

Laboratory studies on resistance of the body louse to insecticides.

67

Sensitivity to the soluble heat-stable toxin of *Bacillus thuringiensis* of strains of *Musca domestica* tolerant to chemical insecticides.

89

Seed-corn maggot resistance to aldrin in Illinois.

105

Temperature effects on the toxicity of five insecticides against five species of stored-product insects.

125

Cockchafers, *McIlonthona melonontha*, L. and *M. hippocastani*, Fabr.

127

Insects and related pests of house plants; how to control them.

128

Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases.

138

Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland.

166

Some biological comparisons of resistant and nonresistant strains of the German cockroach, *Blattella germanica*.

178

Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L.

189

Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire.

203

Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides.

213

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides.

215

Some physiological effects of sublethal doses of DDT on flour beetles.

219

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae.

235

The brown-banded cockroach in Hamburg.

236

On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants.

246

The susceptibility of *Culex pipiens molestus* Forskal in Israel to several insecticides in 1958-1960 and in 1965.

269

A field evaluation of abate briquettes in woodland pools.

270

Practical importance of insecticide resistance for malaria eradication in tropical Africa.

273

Importance of pesticides in preventive medicine.

280

The status of insecticide resistance in populations of *Culex pipiens fatigans* Wiedemann (Diptera: Culicidae) from Queensland.

284

Diseases and parasites of the rose.

322

Influence of insecticide-fungicide spray programmes on growth of apple nursery trees.

324

Insecticides in Norwegian forestry.

348

An estimate of the area of Danish forestry which is treated with pesticides other than herbicides.

351

Control of grass grub and porina.

395

Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control.

398

Evaluation of insecticides for control of the tobacco thrips on peanuts.

409

Porina and grass grubs put curbs on production.

420

Indications on plant care for olive crop cultivation.

430

Maryland arborists discuss insect control.

458

- Raspberry moth. 468
- Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Bch.) and experiments in chemical control. 493
- The insects injurious to potatoes. 507
- Don't take lightly these brinjal borers. 518
- Pasture cockchafer control interim revised control recommendation. 526
- Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533
- Bark beetles. 539
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 584
- Seed dressings and game birds. 585
- Pesticide storage in human fat tissue. 588
- Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues. 594
- Resistance to chlorinated hydrocarbon insecticides in the eye gnat, *Hippelates collusor*. 603
- Field studies of house fly resistance to organophosphorus insecticides. 604
- Getting rid of camel mange. 607
- Herbicide-insecticide formulations for control of the American dog tick. 609
- Houseflies, blowflies and cluster flies. 610
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 612
- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the eye gnat, *Hippelates collusor*. 613
- Some insecticidal trials for the protection of til seeds in storage. 629
- Responses of raisin moth larvae to residues of six insecticidal sprays. 631
- Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 660
- Water pesticides. 2. 674
- Corroborative study of certain chlorinated organic pesticides in dairy products. 685
- Pesticide residues in food. 689
- More about the pesticide residue problem. 697
- Gas chromatography with microcoulometric detection for pesticide residue analysis. 709
- Some observations on the effects of using organochlorine sprays in an orchard. 716
- Microcoulometric gas chromatography of pesticides. 718
- Pesticide testing in dairy factory laboratories. 731
- Some remarks on plant protection preparation-tolerances. 733
- Insecticide residues in milk and dairy products. 763
- The pesticide residue problem from the FDA'S point of view. 772
- Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs. 777
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 781
- Rapid cleanup of dairy products for analysis of chlorinated insecticide residue by electron capture gas chromatography. 782
- Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk. 783
- Pesticides: Present levels in food and possible sources of contamination. 785
- Persistence of DDT, aldrin, and lindane in some midwestern soils. 787
- Chlorinated hydrocarbons as residues in foods. 792
- Insecticide residue in foods subjected to aerosols under simulated warehouse conditions. 794
- Collaborative study of certain chlorinated organic pesticides in dairy products. 809
- Section C: Pesticide residue content. 810
- Activation studies on Florisil. 815
- Retention and volatilization of lindane and DDT in presence of organic colloids isolated from soils and leonardite. 828
- The determination of pesticides in tissues with the electron capture detector without prior cleanup. 830
- Metals, other elements, and residues in foods. 831
- Quantitative paper chromatography of chlorinated insecticides in soils. 837
- Problems in monitoring DDT and its metabolites in the environment. 847
- Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. 848
- Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract). 849
- Pesticide residues in dairy produce. 856
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871
- Pesticide residues. 873
- Toxic chemicals. 876
- Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888
- Laboratory evaluation of insecticides against the cigarette beetle. 894
- The uptake from water by several species of fresh-water fish of p,p-DDT, dieldrin, and lindane; their tissue distribution and elimination rate. 912
- The metabolism of contact insecticides in stored grains. 946
- Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- The chromatographic separation of pesticides on silicic acid. 985
- Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector. 990
- Microcoulometric gas chromatography of pesticides. 992
- Gas chromatography using an electron absorption detector. 999
- Selective detection and identification of pesticide residues. 1004
- Simultaneous quantitative determination of lindane and DDT gas chromatography. 1010
- Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- Pesticides. 1025
- Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026
- Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027
- Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides. 1034
- Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035
- Comparison of laboratory techniques for the determination of pesticide residues in milk. 1038
- Thin-layer chromatography for chlorinated pesticide residue analysis. 1040
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- LINURON
- Adsorption of some pesticides on soils, clay minerals and humic acid. 791
- LIOTHRIPS OLEAE
- The damage brought about by *Phloeotribus*. 474



# SUBJECT INDEX

## LIPIDS

### LIPIDS

Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug *Lygus hesperus*. 43

The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo e. erythrophthalmus* Linnaeus). 578

Estrogenic action of DDT and its analogs. (Abstract). 928

### LIPOVITELLIN

DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 145

### LITERATURE

Granular insecticides' their history and literature. 1023

### LIVER

Protein-deficient diet and DDT toxicity. 587

Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE. 591

Evidence for conversion of DDT to TDE in rat liver: II. Conversion of p,p' DDT to p,p' TDE in axenic rats. 592

No effect level of DDT in induction of microsomal epoxidation. 753

Excretion of DDT by migratory birds. 762

Metabolites: reductive dechlorination of DDT to DDD and isomeric transformation of o,p, DDT to p,p,-DDT in vivo. 775

DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843

DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844

Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938

DDT-INDUCED metabolic changes in rat liver. 947

Detoxification of DDT by the perfused bovine liver. 959

### LIVESTOCK

Residues of DDT and its derivatives in the fat tissues of some market animals. 854

### LIVESTOCK DISEASES

Insect tormentors of livestock: IV. The mites. 600

The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692

### LOBSTERS

Interaction of DDT with the components of lobster nerve membrane conductance. 935

### LONGEVITY

Effect of DDT poisoning on the longevity and fecundity of the pink bollworm. 29

### LONGITARSUS

Problems in the control of mint insects. 401

### LOSSES

Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656

Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926

### LOW VOLUME APPLICATION

The selection of a solvent for use with low volume aerial spraying of cotton plants. 969

### LUCILIA CUPRINA

Dieldrin resistance in *Lucilia sericata* (Meig) from Co. Dublin, Eire. 203

### LYGOCORIS PABULINUS

Capsid bugs on fruit. 469

### LYGUS

Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug *Lygus hesperus*. 43

Laboratory tests with toxaphene, DDT, and Sevin against *Lygus hesperus* on cotton. 359

New insecticides for lygus bug control on vegetable seed crops. 373

Effect of lygus bug control on yield of lima beans. 459

The effect of *Lygus* bug control on the yield of lima beans. 460

Control of the tarnished plant bug, *Lygus lineolaris*, on birdsfoot trefoil grown for seed. 502

Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 522

### LYGUS LINEOLARIS

The reduction of insect-caused apical seediness in strawberries. 511

### MACROCHELES MUSCAEDOMESTICAE

Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888

### MACROPOPILLIA ARROWI

Some pests of ornamental plants in Madras. 339

### MACROPSIS TRIMACULATA

Controlling peach yellows in a peach breeding program. 480

### MAGGOTS

Dieldrin-resistant and DDT-RESISTANT strains of the spotted root maggot apparently restricted to heterozygotes for resistance. 115

Development of resistance to DDT by the apple maggot, *Rhagoletis pomonella*. 450

### MAGNESIUM SULFATE

Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192

### MALARIA

Notes on the mosquitoes of the Islamic Republic of Mauritania. (Dipt. Culicidae). (2). 99

*Anopheles moucheti* in Cameroon. 168

Review of classical malaria control measures. 271

Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273

Eradication of malaria and mosquito control in Italy. 279

Prospects for the eradication of malaria in Algeria. 282

Malaria and victory in Vietnam. 288

Technical problems of malaria eradication in Africa. 289

Entomological factors in persisting transmission of malaria in eradication programs. 290

### MALARIA CONTROL

Eradication of malaria and mosquito control in Italy. 279

The United States and malaria: Debits and credits. 294

### MALATHION

The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 19

How to control bed bugs. 34

The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenee) (Lepidoptera: Noctuidae) to several contact insecticides. 37

Laboratory studies on resistance of the body louse to insecticides. 67

Control of the boll weevil on cotton with ultra-low-volume (undiluted) technical malathion. 68

Development of resistance to synergized pyrethrins in body lice, and cross resistance to DDT. 71

Practical importance of resistance to insecticides in *Anopheles*. 72

Susceptibility of arctic mosquitoes to DDT and malathion. 73

Studies on resistance to malathion in the mosquito, *Culex tarsalis*. 75

Biology and control of leopard moth on pear trees in the United Arab Republic. 84

Comparison of sterols in resistant and susceptible houseflies, *Musca domestica*. 85

Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles. 87

An analysis of house fly resistance to insecticides in California. 90

Specificity in insecticides. 103

Temperature effects on the toxicity of five insecticides against five species of stored-product insects. 125

Insects and related pests of house plants; how to control them. 128

Stable fly tolerance to residues of DDT, dieldrin, malathion and diazinon. 129

Effect of dDT resistance on the development of malathion resistance in house flies. 140

Laboratory evaluation of insecticides against the adult horn fly. 141

Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166

Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes. 173

Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175

Physiological and genetical studies on resistance to DDT substitutes in *Aedes aegypti*. 181

Field tests for control of overwintered boll weevils. 209

Susceptibility of an eye gnat, *Hippelates pusio*, to residual insecticides. 213

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215

Some physiological effects of sublethal doses of DDT on flour beetles. 219

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235

Susceptibility of *Mansonia* mosquitoes to certain insecticides in Thailand. 240

Studies on the development to DDT and malathion in house flies. 267

The susceptibility of *Culex pipiens molestus* forskal in Israel to several insecticides in 1958-1960 and in 1965. 269

Results of tests of sensitivity to insecticides of *Anopheles* adults in rumania. 275

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 277

Responses of *Aedes aegypti* (L.) from Alabama, Georgia and South Carolina to DDT, dieldrin, and malathion. 278

Technique of continuous exposure for the determination of insecticide resistance in mosquito larvae. 281

The effectiveness of chemically treated screens in killing annoying punkies, *Culicoides obsoletus*. 285

Resistance of *Aedes taeniorhynchus* (Wiedemann) to malathion. 287

The influence of sublethal dosages of insecticides on the basal follicles of *Aedes aegypti* (L.). (abstract). 299

Resistance: A discussion of its impact on plant protection. 307

Insect control for garden vegetables. 311

Low volume aerial spraying. 317

A leaf disorder of cacao in Costa Rica. 330

Low-volume aerial spraying of several insecticides for cotton-insect control. 340

Double your cotton yield by spraying. 346

Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347

Interference with the biological control of cottony-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350

Forest entomology. 353

Chemicals that take care of the mango hopper. 354

Dosage levels and seasonal behavior of insecticides used in control of european pine shoot moth. 370

Control of several cotton insects in field experiments in 1960. 381

Control of vetch bruchid, *Bruchid brachialis*, in Oregon. 389

Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 390

Biology and control of leopard moth on pear trees in the United Arab Republic. 393

Field experiments on control of overwintered boll weevils. 397

Control of the tadpole shrimp, *Triops longicaudatus* in California rice fields. 407

Evaluation of chemical and microbial materials for the control of the cabbage looper. 408

Experiments for the control of sap beetles in sweet corn grown for processing. 417

The effects of DDT and malathion upon forest soil microarthropods. 418

Evaluation of new materials for codling moth control in Washington. 431

Effect of urea on control of some apple insects with certain insecticides. 432

Pesticides and bees. 440

Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton. 449

Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*. 456

Suppression of the Saratoga spittlebug, *Aphrophora saratogensis* (Fitch), with malathion in Michigan pine plantations. 467

Rice leafhoppers. 477

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489

Control of pecan nut casebearer. 490

Observations on soybean insects in maryland. 498

Some recommendations for the control of perforators of seeds of *Anonaceae* (Bephra sp. order Hymenoptera). 500

Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503

Chemical control of *Drosicha mangiferae* (Green), a serious pest of *Citrus* spp. in Madhya Pradesh. 510

Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 512

Biology and control of morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 513

Biology and control of the apple seed chalcid in North Carolina. 530

The cotton leaf perforator and its control in Arizona. 531

Field experiments with several insecticidal sprays against the boll weevil and bollworm. 560

Salt-marsh caterpillar control on cotton in Arizona. 567

Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*. 571

Effect of some pesticides on the adrenal glands in the rat. 580

Tick fever in poultry. 593

Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

House fly pupation under baseboards. 611

Sticktight flea control on chickens with malathion dust self-treatment. 614

Area control of *Fannia canicularis*. 625

Responses of raisin moth larvae to residues of six insecticidal sprays. 631

Collection and analysis of synthetic organic pesticides from surface and ground water. 652

Persistent pesticides. 688

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

Removal of DDT, malathion, and carbaryl from green beans by commercial and home preparative procedures. 742

Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods. 745

Production of antibodies against insecticide-protein conjugates. 757

Adsorption of some pesticides on soils, clay minerals and humic acid. 791

Collaborative studies on the analysis of pesticide residues. 806

Metals, other elements, and residues in foods. 831

Laboratory evaluation of insecticides against the cigarette beetle. 894

Effects of insecticides on algae. 895

Pesticide residues in foods in relation to human health. 904

Toxicity of DDT, dieldrin, malathion and fenthion to *Rhodnius prolixus* in the laboratory. 908

2-PAM for pesticide poisoning. 917

Chemical vs environmental changes. Their effects on wildlife. 921

Food chain studies. 923

Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926



**MALEIC HYDRAZIDE**

- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931
- The metabolism of contact insecticides in stored grains. 946
- Effects of some insecticides on nitrogen fractions of Bartlett pear leaf tissue. 973
- Report on analytical methods for pesticide formulations. 989
- Chromatographic separation of malathion prior to infrared spectrophotometric estimation. 995
- Applications of polarography for the detection and determination of pesticides and their residues. 998
- Gas chromatography using an electron absorption detector. 999
- Pesticides' unsung assistants. 1000
- Report on analytical methods for pesticide formulations. 1001
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021

**MALEIC HYDRAZIDE**

- Pesticide situation for 1959-60. 1049

**MAMMALS**

- Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- On the toxicology of Pyrethrum to warm blooded animals. 1030

**MANGANESE**

- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931

**MANGE**

- Getting rid of camel mange. 607

**MANGOES**

- Chemicals that take care of the mango hopper. 354
- Chemical control of mango hoppers (*Idiocerus* spp.). 376

**MARINE BIOLOGY**

- DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide. 678
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770
- DDT reduces photosynthesis by marine phytoplankton. 878
- Food chain studies. 923
- DDT residues in pacific sea birds: a persistent insecticide in marine food chains. 942

**MARKET AREAS**

- Is there room for U.S. firms in the European pesticide market. 1058

**MARKETING**

- Residues of DDT and its derivatives in the fat tissues of some market animals. 854

**MARSHES**

- The accumulation of <sup>36</sup>Cl ring-labeled DDT in a freshwater marsh. 663

**MARYLAND**

- Observations on soybean insects in maryland. 498

**MASSACHUSETTS**

- The persistence of gypsy moth parasites in heavily sprayed areas on Cape Cod, Massachusetts. 391

**MATHEMATICAL ANALYSIS**

- Toxicological studies on a beetle, *Alphitobius laevigatus* (F.). V. Joint actions of some pairs of like and unlike toxicants. 25

**MATING HABITS**

- Growth and resistance to stress in brook trout fed sublethal levels of DDT. 929

**MEASUREMENT**

- Predicting and measuring the solubility of p,p'-DDT in water. 638
- Pesticides in people. Storage of DDT in the people of Israel. 866

**MEAT**

- To ban DDT dusts and sprays. 682
- DDT residues in beef cows fed apple pomace. 835

**MEDICAL ENTOMOLOGY**

- Practical importance of resistance to insecticides in Anopheles. 72
- Anopheles moucheti in Cameroon. 168
- Insecticide susceptibilities of *Phlebotomus papatasi* (Scopoli) from Egypt and the Sudan. 201
- Review of classical malaria control measures. 271
- Practical importance of insecticide resistance for malaria eradication in tropical Africa. 273
- Technical problems of malaria eradication in Africa. 289
- Entomological factors in persisting transmission of malaria in eradication programs. 290

**MEGACHILE ROTUNDATA**

- Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231

**MELIGETHES AENEUS**

- Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera). 523

**MELOLONTHA MELOLONTHA**

- Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533

**MELOPHAGUS OVINUS**

- Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

**MENTHA**

- Control of mint insects. 402

**MERCURY**

- Collaborative studies on the analysis of pesticide residues. 806
- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931

**MERCURY COMPOUNDS**

- Seed dressings and game birds. 585

**MERGANSER DIE-OFF**

- A merganser die-off associated with larval eustrongylides. 589

**METABOLISM**

- A new DDT-METABOLIZING enzyme in the German cockroach. 30
- Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119
- Metabolism of injected proline in DDT-POISONED German cockroaches. 120
- The metabolism of C-14 labeled DDT in larvae, pupae, and adults of *Drosophila melanogaster*. 162
- The effects of DDT on oxidative metabolism in susceptible and DDT-RESISTANT *Aedes aegypti*. 165
- Pesticide-induced enzyme breakdown of steroids in birds. 583
- The effect of a pretreatment with phenobarbital on the metabolism of DDT in dairy cows and young bulls. 692
- Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*. 802
- DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880
- DDT-METABOLISM and excretion in *Coleomegilla maculata* De Geer. 885
- Effects of insecticides on algae. 895
- Amino acid metabolism in DDT-poisoned American cockroaches. 897
- Pharmacodynamic study of DDT in cockerels. 905
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 914
- Estrogenic action of DDT and its analogs. (Abstract). 928
- Biochemical changes in rat liver in response to treatment with drugs and other agents-II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- DDT-INDUCED metabolic changes in rat liver. 947
- Penetration and metabolism of DDT in resistant and susceptible house flies and the effect on latent toxicity. 948
- The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957
- Role of intestinal microflora in the degradation of DDT by rainbow trout (*Salmo gairdneri*). 958
- Detoxification of DDT by the perfused bovine liver. 959
- Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996
- Metabolic products of p,p'-DDT in the rat. 1020

**METABOLITES**

- Partial characterization of the in vivo metabolites of DDT-C14 in *Triatoma infestans*. 31

Toxicology and physiology of DDT resistance in the German cockroach.	117
Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths.	195
DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides.	254
Relation between DDT in diets of laying birds and viability of their eggs.	582
Pesticide monitoring programs.	639
Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada.	642
Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-is, 1965. robert J. gould, ed.	672
Water pesticides. 2.	674
DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide.	678
Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography.	714
Chlorinated insecticides in the body fat of people in the United States.	723
Chlorinated insecticides in the body fat of people in the United States.	724
DDT residues and metabolites in Canadian Atlantic coast fish.	734
Chlorinated hydrocarbon insecticide residues in selected insects and birds found in association with cotton fields.	741
Degradation of DDT in Atlantic salmon ( <i>Salmo salar</i> ).	755
Metabolites:reductive dechlorination of DDT to DDD and isomeric transformation of o,p, DDT to p,p,-DDT in vivo.	775
Pesticide residues in a marine population of double-crested cormorants.	778
DDT residues absorbed from organic detritus by fiddler crabs.	823
DDT residues absorbed from organic detritus by fiddler crabs.	824
Separation, identification, and measurement of DDT and its metabolites.	841
Problems in monitoring DDT and its metabolites in the environment.	847
Interaction of DDT and the gastrointestinal microflora of the rat.	892
Insecticide-resistant fishes: A potential hazard to consumers.	907
Role of intestinal microflora in the degradation of DDT by rainbow trout ( <i>Salmo gairdneri</i> ).	958
Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants.	972

**METAMORPHOSIS**

Biology and control of leopard moth on pear trees in the United Arab Republic.	84
Studies on the Sitka spruce weevil, <i>Pissodes sitchensis</i> , in British Colombia.	206
Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967.	435

**METARRHIZIUM ANISOPLIAE**

The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarrhizium anisopliae</i> .	19
---	----

**METHANOL**

Low temperature sprays for Dutch elm disease control.	323
---	-----

**METHANOPHTHALAN, 1,3,4,6,7,8-**

The cotton leaf perforator and its control in Arizona.	531
--	-----

**METHODOLOGY**

A method for field detection of hornfly susceptibility to ddt residues.	207
Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others.	677
Pesticide testing in dairy factory laboratories.	731
Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods.	745
Recommended analytical methods for pesticides. 17. 2,4-D,2, 4-D salts and 2,4-d formulations. 18. DDT dusts and waterdispersible powders.	981
Collaborative, study of the sweep co-distillation cleanup for chlorinated pesticide residues in edible fats and oils.	1012
Degradation of gamma-BHC in simulated lake impoundments as affected by aeration.	1017
Estimation of DDT in factory waste.	1022

**METHOXYCHLOR**

Temperature effects on the toxicity of five insecticides against five species of stored-product insects.	125
Laboratory evaluation of insecticides against the adult horn fly.	141
Insect control for garden vegetables.	311
Low temperature sprays for Dutch elm disease control.	323
Dormant sprays for the control of dutch elm disease.	325
Dosage levels and seasonal behavior of insecticides used in control of european pine shoot moth.	370
Control of vetch bruchid, <i>Bruchid brachialis</i> , in Oregon.	389
Collection and analysis of synthetic organic pesticides from surface and ground water.	652
Water pesticides. 2.	674
Extraction of chlorinated pesticide residues from nonfatty samples of low moisture content.	700

Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods.

	708
An investigation of the oscillopolarography of DDT and certain analogs.	750

Insecticide residues in milk and dairy products.	763
--	-----

Response of robins to DDT and methoxychlor.	767
---	-----

Metabolism of ddt and some other chlorinated organic compounds by <i>Aerobacter aerogenes</i> .	802
---	-----

Section C: Pesticide residue content.	810
---------------------------------------	-----

Pesticide residues in commerical animal feeds.	811
--	-----

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application.	816
--	-----

Residue analysis in the dairy industry. in: Zwig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application.	817
---	-----

Metals, other elements, and residues in foods.	831
--	-----

Response of robins to DDT and methoxychlor.	919
---	-----

Estrogenic action of DDT and its analogs. (Abstract).	928
---	-----

The metabolism of contact insecticides in stored grains.	946
--	-----

Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector.	990
--	-----

Applications of polarography for the detection and determination of pesticides and their residues.	998
--	-----

The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography.	1011
--	------

Programmed temperature gas chromatography (PTGC) and microcoulometric detection of chlorinated insecticides.	1034
--	------

Water-base insecticides.	1036
--------------------------	------

Thin-layer chromatography for chlorinated pesticide residue analysis.	1040
---	------

Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.	1041
--	------

Infrared spectra of pesticides.	1042
---------------------------------	------

**METHYL DEMETON**

Tomato yellow top.	328
Bioecology and chemical control of the apple codling moth ( <i>Carpocapsa pomonella</i> ) L. in Mendoza.	394
Collaborative studies on the analysis of pesticide residues.	806

**METHYL PARATHION**

Insecticide resistance in <i>Bracon mellitor</i> , a parasite of the boll weevil.	28
The effects of chemical insecticides and insecticidal adjuvants of a <i>Heliothis</i> nuclear polyhedrosis virus.	123



# SUBJECT INDEX

## METHYL TRITHION

- Response of the striped lynx spider, *Oxyopes salticus*, to two commonly used pesticides. 191
- Field tests for control of overwintered boll weevils. 209
- Low-volume aerial spraying of several insecticides for cotton-insect control. 340
- Growth and development of cotton as affected by toxaphene, DDT, methyl parathion, and calcium arsenate. 366
- Field experiments against several late-season cotton insects in 1959. 386
- Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 390
- Field experiments on control of overwintered boll weevils. 397
- Control of bollworm adults on cotton with insecticides. 473
- Effects of various water volumes on the effectiveness of methyl parathion-DDT, in controlling the cotton boll weevil, *Anthonomus grandis*. 481
- Control of several early-season cotton pests with insecticides. 486
- Field experiments with several insecticidal sprays against the boll weevil and bollworm. 489
- Cotton fiber quality as related to some cotton insect control programs and time of fruit setting. 492
- The cotton leaf perforator and its control in Arizona. 531
- Control of the beet armyworm on cotton in Arizona. 538
- Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control. 542
- Field experiments with several insecticidal sprays against the boll weevil and bollworm. 560
- Salt-marsh caterpillar control on cotton in Arizona. 567
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936
- Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997
- The optimum size for insecticide spray droplets. 1003
- Pesticide situation for 1959-60. 1049

## METHYL TRITHION

- Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499

## METHYLTHIO-3,5-XYLYL METHYL CARBAMATE, 4-

- Alternatives to DDT for the control of the pea moth on dry harvesting peas. 403

## MEVINPHOS

- Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175

- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 371
- Laboratory tests of insecticides against the salt-marsh caterpillar. 413
- Effectiveness of insecticides against the corn earworm in sorghum heads. 421
- Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia. 429
- Laboratory tests of insecticides against eggs and larvae of the cabbage looper. 447
- The effect of *Lygus* bug control on the yield of lima beans. 460
- Residues on oranges resulting from the use of DDT, parathion, phosdrin, and TDE for the control of orangeworms. 622
- Pesticides are blamed for 911 California injuries. 1048

## MEXICO

- Pink bollworm resistance to DDT in the Laguna area of Mexico. 65
- Investigations of pink bollworm resistance to DDT in Mexico and the United States. 152
- Incidence of pink bollworm resistance to DDT. 561

## MICCOTROGUS PICIROSTRIS

- Bee poisoning versus clover seed weevil control in white dutch clover grown for seed. 441

## MICE

- The effect of DDT on reproduction in mice. 577
- The effect of DDT on reproduction in mice. 598
- Distribution of C14-DDT and C14-dieldrin in pregnant mice determined by whole-body autoradiography. 634
- The significance of DDT in household and structural pest control - 1969. 635
- Effect of DDT or parathion on condition avoidance response of offspring from DDT or parathion treated mothers. (abstract). 881

## MICHIGAN

- Suppression of the Saratoga spittlebug, *Aphrophora saratogensis* (Fitch), with malathion in Michigan pine plantations. 467

## MICROARTHROPODS

- The effects of DDT and malathion upon forest soil microarthropods. 418

## MICROFLORA

- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711

## MICROORGANISMS

- The problem of the utilization of entomopathogenic microorganisms in combination with insecticides. 223
- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- Problems in monitoring DDT and its metabolites in the environment. 847
- Role of intestinal microflora in the degradation of DDT by rainbow trout (*Salmo gairdneri*). 958
- Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996

## MICROSCOPY

- Tick fever in poultry. 593
- Microscopic identification of some chlorinated hydrocarbon insecticides on different substrata. 1026

## MICROSOMES

- Some properties of the microsomal system metabolizing DDT in *Triatoma infestans*. 33
- Insecticide-cytoplasmic interactions in insects and vertebrates. 224
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- DDT and related chlorinated hydrocarbons: Their metabolism in the chick and their induction of microsomal enzymes. 880
- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938

## MILK

- Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 584
- DDT contamination of feed and residues in milk. 658
- Residue tolerances set for DDT in milk. 698
- Secretion of DDT in milk by fresh cows. 707
- Comparisons of residues in milk resulting from two types of spray applications of DDT, SHELL COMPOUND 4072, and ronnel. 715
- The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 751
- Rapid colorimetric determination of DDT in milk. 756
- DDT residues on New York dairy farms following the gypsy moth eradication program. 765
- DDT residues on New York dairy farms following the gypsy moth eradication programme. 766
- Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk. 783
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796
- Collaborative study of certain chlorinated organic pesticides in dairy products. 809
- Investigation to determine the respective residue amounts of DDT and its analogues in the milk and back fat of selected dairy animals. 819
- Rapid screening method for DDT in milk with gas chromatography. 838
- Rapid screening method for DDT in milk with gas chromatography. 839
- Secretion of DDT by lactating cows fed thyroprotein. 853
- Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 872
- Residues and chemosterilants: Residues in milk. 875

- Insecticide residues in milk: DDT residues in milk from dairy cows fed low levels of DDT in their daily rations. 879
- Rapid colorimetric determination of DOT in milk and butter. 1033
- Comparison of laboratory techniques for the determination of pesticide residues in milk. 1038
- FDA publishes proposal for residue tolerance in milk. 1063
- MILK ANALYSIS**
- Comparisons of residues in milk resulting from two types of spray applications of DDT, SHELL COMPOUND 4072, and ronnel. 715
- Investigation to determine the respective residue amounts of DDT and its analogues in the milk and back fat of selected dairy animals. 819
- Extraction of milk for DDT determination: one-day complete method. 852
- DDD as a decomposition product of DDT. 1019
- MILK FAT**
- DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT pills and DDTsuperphosphate. (abstract). 760
- Screening method for the detection of chlorinated hydrocarbon pesticide residues in the fat of milk, cheese, and butter. 820
- Respiratory exposure of dairy animals to pesticides. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 960
- MILKY DISEASE**
- Controlling the Japanese beetle. 36
- MINERAL OIL**
- Changes in usage of plant protection preparations during the last fifteen years. 310
- The selection of a solvent for use with low volume aerial spraying of cotton plants. 969
- Pesticides unsung assistants. 1000
- MIRIDAE**
- New insecticides for lygus bug control on vegetable seed crops. 336
- MISSISSIPPI**
- Investigations of the possibility of host specific strains of the bollworm and tobacco budworm in Mississippi. 210
- MITES**
- Insecticides as a factor in population fluctuations of mites on lucerne. 337
- Control of the white mite on cotton with various powder and dust products. 342
- Control of yellow tea mite, *Hemitarsonemus latus* (Banks) with DDT on cotton in Uganda. 436
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506
- The insects injurious to potatoes. 507
- Pests of legume seed crops in north Queensland. 509
- Can we conquer the 'mighty' mites. 558
- Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888
- MOLASSES**
- Field experiments on control of overwintered boll weevils. 397
- MOLYBDENUM**
- Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192
- MONTEREY PINE TIP MOTH**
- Seasonal activity and control of the Monterey pine tip moth. 12
- MORPHOLOGY**
- The toxicity and sublethal effects of p p'-DDT and dieldrin to *Aglaia urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria: Acrididae). 818
- MORTALITY**
- Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3
- DDT-RESISTANCE in two strains of *Culex pipiens pipiens* Linnaeus from New Jersey. 111
- The group effect in the tests on insecticide resistance in *Aedes aegypti*. 198
- Effects on resistance of exposure of houseflies to sub-lethal and partially lethal doses of DDT. 217
- Some physiological effects of sublethal doses of DDT on flour beetles. 219
- The problem of the utilization of entomopathogenic microorganisms in combination with insecticides. 223
- Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231
- Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235
- The influence of sublethal dosages of insecticides on the basal follicles of *Aedes aegypti* (L.). (abstract). 299
- Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk. 557
- Problems with DDT in fish culture operations. 719
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 744
- Response of robins to DDT and methoxychlor. 767
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 771
- Pesticide residues in a marine population of double-crested cormorants. 778
- Reproduction in brook trout (*Salvelinus fontinalis*) fed sublethal concentrations of DDT. 790
- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 883
- Ecological and nutritional studies on *Coleomegilla maculata* DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials. 886
- Susceptibility and resistance of mosquito fish to several insecticides. 891
- Response of robins to DDT and methoxychlor. 919
- Growth and resistance to stress in brook trout fed sublethal levels of DDT. 929
- MOTHS**
- The toxicity of insecticides to larvae of the codling moth, *Cydia pomonella* (L.). I. Intrinsic toxicity and toxicity and persistence. (Abstract). 94
- Notes on the syntomid moth *Lymire edwardsi* (Grote) and its control as a pest of *Ficus* in south Florida. 300
- Control of sugar-beet moth, *Phthorimaea ocellatella*, Boyd. 451
- Incidence of pink bollworm resistance to DDT. 561
- MUNG BEANS**
- Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of *Phaseolus aureus* (green gram). 971
- MUSCA**
- A comparison of the susceptibility of the face fly, *Musca autumnalis*, and the house fly, *M. domestica*, to insecticides in the laboratory. 225
- Control of face flies, *Musca autumnalis* on beef cattle in Indiana. 602
- Houseflies, blowflies and cluster flies. 610
- MUSCA DOMESTICA**
- Mechanisms of insect resistance are manifold and highly efficient. 23
- Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 46
- Cumulative effect of sublethal doses of myristyl chloroacetate on a highly DDT-resistant strain of *Musca domestica* L. 50
- The response of the labellar taste receptors of DDT-RESISTANT and non-resistant houseflies (*Musca domestica*) to DDT. 57
- Control of the boll weevil on cotton with ultra-low-volume (undiluted) technical malathion. 68
- A comparison of some house fly bioassay methods. 74
- Causes of resistance to DOT in a diazinon-selected and a DDT-SELECTED strain of house flies. 82
- Comparison of sterols in resistant and susceptible houseflies, *Musca domestica*. 85
- Sensitivity to the soluble heat-stable toxin of *Bacillus thuringiensis* of strains of *Musca domestica* tolerant to chemical insecticides. 89
- An analysis of house fly resistance to insecticides in California. 90
- The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, *Musca domestica* L. 108
- Persistence of resistant populations after the relaxation of the selection pressure. 133
- Effect of dDT resistance on the development of malathion resistance in house flies. 140



**MUSCIDAE**

Biological interaction between plasticizers and insecticides. 142

DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 145

Prolonged resistance in the house fly and bed bug. 154

Field tests of dichlorvos, General Chemical 4072, Hooker Compound, and synergized dDT against *Musca domestica*. 156

Resistance to insecticides of three strains of *Musca domestica* L. from Brisbane, Queensland. 166

Intracellular distribution of TPN-ISOCRITIC dehydrogenase activity in susceptible and insecticide-resistant strains of *Aedes aegypti*. 171

The determination of the insecticidal activity of an 8 year old sample of DDT by biological method. 174

Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182

Pick-up of insecticide through different pairs of house fly tarsi. 185

The sensitivity of *Musca domestica* nebulosa f. and *M. domestica* vicina macq. to DDT, BHC and dieldrin, as shown by dosage-mortality curves. 186

Inheritance of DDT-RESISTANCE in *Musca domestica* nebulosa Fabr. 187

Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L. 189

Studies on fine-particle, coarse-particle, and concentrated aerosols. 199

Antiresistant DDT continues to offer superior fly control. 202

A comparison of chemoreceptor and whole-fly responses to DDT and parathion. 211

Effect of insecticide poisoning on chemoreception in the house fly, *Musca domestica* vicina L. (Diptera: Muscidae). 212

Effects on resistance of exposure of houseflies to sub-lethal and partially lethal doses of DDT. 217

A method for selection for DDT-susceptibility. 220

A comparison of the susceptibility of the face fly, *Musca autumnalis*, and the house fly, *M. domestica*, to insecticides in the laboratory. 225

Effectiveness of WARF Antiresistant as an additive to DDT for control of resistant house flies. 237

WARF anti-resistant: DDT selection and house fly crossresistance. 247

Some new mutants and linkage groups of the house fly. 251

A gross analysis of two DDT-RESISTANT house fly strains. 252

DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254

Two types of sesamex-suppressible resistance in the housefly. 260

Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261

A preliminary report on mutations in the house fly. 264

Studies on the development to DDT and malathion in house flies. 267

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 276

Entomologists exchange '59 research results. 305

Antiresistant form of DDT is successful in tests with flies. 575

Field studies of house fly resistance to organophosphorus insecticides. 604

Houseflies, blowflies and cluster flies. 610

House fly pupation under baseboards. 611

The susceptibility of house flies reared under various photoperiods to insecticide residues. 748

Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888

Penetration and metabolism of DDT in resistant and susceptible house flies and the effect on latent toxicity. 948

Specificity of diethylhaloethane-dehydrohalogenase of susceptible and DDT-RESISTANT house flies. 986

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT- and parathion-resistant house-flies. 1014

A thermal preference method of bioassay of the toxicity of insecticidal films to house flies. 1047

**MUSCIDAE**

*Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396

**MUSHROOMS**

Residuals of pesticides in cultivated mushrooms. 870

Pesticide residues in cultivated mushrooms. 871

**MUTTON**

Pesticide residues in food. 689

**MYRISTYL CHLOROACETATE**

Cumulative effect of sublethal doses of myristyl chloroacetate on a highly DDT-resistant strain of *Musca domestica* L. 50

**MYZUS**

European corn borer control in potatoes. 362

Effectiveness of insecticides against the European maize borer and green peach aphid on peppers. 427

**MYZUS CERASI**

Pests and diseases threatening our cherries. 520

**N-TRICHLOROMETHYL-MERCAPTOPHTHALIMIDE**

Performance of sevin against grape berry moth. 524

**NALED**

Resistance of *Aedes taeniorhynchus* (Wiedemann) to malathion. 287

Control of vetch bruchid, *Bruchid brachialis*, in Oregon. 389

Evaluation of chemical and microbial materials for the control of the cabbage looper. 408

Laboratory tests of insecticides against the salt-marsh caterpillar. 413

Effectiveness of insecticides against the corn earworm in sorghum heads. 421

Field experiments on the insecticidal control of insects attacking peas, snap and lima beans. 499

The cotton leaf perforator and its control in Arizona. 531

Control of the beet armyworm on cotton in Arizona. 538

Effectiveness of several insecticidal aerosols against the Japanese beetle. 632

Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888

**NAPHTHA**

Aromatic solvents for pesticides. 1018

**NAPHTHALENE**

DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254

**NATURAL CONTROL (INSECTS)**

Controlling the Japanese beetle. 36

Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Columbia. 206

Natural enemies of *Laspeyresia pomonella* L. (Lepidoptera, Tortricidae) and the effect of chemical treatment on their useful activity. 399

Cutworms and armyworms. 478

**NEMATODES**

Effects of aldrin and DDT on soil fauna and arable land. 1

Selective control of *Simulium damnosum* and river management. 286

Pests of legume seed crops in north Queensland. 509

**NEODIPRION**

*Neodiprion taedae* linearis: A sawfly pest of loblolly and shortleaf pines. 383

**NERVES**

Mode of action of DDT and allethrin on nerve: Cellular and molecular mechanisms. 934

Interaction of DDT with the components of lobster nerve membrane conductance. 935

**NERVOUS SYSTEM**

Temperature and the action of DDT on the nervous system of *Periplaneta americana* (L.). 80

Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches. 109

Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA. 205

Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 586

# SUBJECT INDEX

## ORGANOPHOSPHORUS COMPOUNDS

- DDT. Sublethal effects on brook trout nervous system. 693
- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 883
- DDT: Sublethal effects on brook trout nervous system. 884
- The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum. 887
- Action of DDT on the peripheral nervous system of the grass frog *Rana pipiens*. 920
- The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931
- Effect of insecticides on neurophysiological activity in insects. 950
- NEW BRUNSWICK**
- One hundred planes to spray budworm in New Brunswick. 546
- NEW YORK**
- Aerial spray tests against gypsy moth. *Porthetria dispar* in New York. 379
- DDT residues on New York dairy farms following the gypsy moth eradication program. 765
- NEW ZEALAND**
- Control of grass grub and porina. 395
- Insecticides in human fat in New Zealand. 703
- NICOTINE**
- Insect control for garden vegetables. 311
- Pesticides and bees. 440
- Metals, other elements, and residues in foods. 831
- NITRIC ACID**
- Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 768
- Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006
- NITRIFICATION**
- Pesticide effects in soils on nitrification and plant growth. 976
- NITROGEN**
- DDT susceptibility of *Drosophila melanogaster* in relation to dietary amino nitrogen. 194
- Effect of storage on cottonseed and cottonseed products. 621
- NITROSODIMETHYLAMINE, N**
- Biochemical changes in rat liver in response to treatment with drugs and other agents—II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- NOCTUIDAE**
- Insect control for garden vegetables. 311
- Cutworms and armyworms. 478
- NORTHERN NIGERIA**
- The eradication of *Glossina morsitans submorsitans* Newst. and *Glossina tachinoides* Westw. in part of a river flood plain in Northern Nigeria by chemical means. Part III. 76
- The eradication of *Glossina morsitans submorsitans* Newst. and *Glossina tachinoides* Westw. in part of a river flood plain in Northern Nigeria by chemical means. Part II. 137
- NUTRIENT SOLUTIONS (PLANTS)**
- Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. 313
- NUTRITION**
- Ecological and nutritional studies on *Coleomegilla maculata* DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials. 886
- NYMPHALIDAE**
- The toxicity and sublethal effects of p p'-DDT and dieldrin to *Aglais urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria: Acrididae). 818
- NYMPHS**
- The induction of NAD kinase by DDT in *Triatoma infestans*. 32
- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- NYSIUS**
- Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton. 449
- O,O-DIETHYL S-ISOPROPYLTHIOMETHYL PHOSPHORODITHIOATE**
- Incidence of field spread of internal cork of sweet potato in insecticide-treated plots. 444
- O,O-DIETHYL O-2-PYRAZINYL PHOSPHOROTHIOATE**
- Control of the corn earworm with American Cyanamid 18133. 357
- O,O-DIETHYL S(2-DIETHYLAMINO)-ETHYL PHOSPHOROTHIOATE**
- Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 529
- OATS**
- Penetration of seeds by acetone solutes. 334
- OESTRIDAE**
- Biology and control of *Dermatobia hominis* (L. Jr.) in Honduras (Diptera: Cuterebridae). 13
- OILS**
- Estimation of chlorinated pesticide residues in animal and vegetable oils. 842
- Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035
- Chlorinated insecticides and miticides Electron capture gas chromatography for determination of DDT in butter and some vegetable oils. 1039
- DDT and heptachlor as black-fly larvicides in clear and turbid water. 1051
- OLETHREUTIDAE**
- European pine shoot moth. 228
- OLIGONYCHUS UNUNGUIS**
- Mites collected from Douglas-fir foliage in Montana. 7
- OLIVES**
- Indications on plant care for olive crop cultivation. 430
- The damage brought about by *Phloeotribus*. 474
- ONCHOCERCA VOLVULUS**
- Selective control of *Simulium damnosum* and river management. 286
- ONCHOCERCIASIS**
- On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania. 106
- The *Simulium* control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274
- ONIONS**
- Control of onion fly, *Delia antiqua*, with seed dressings. 372
- ONTARIO**
- Carabids collected in a DDT-sprayed peach orchard in Ontario (Coleoptera: Carabidae). 112
- ORANGES**
- Residues on oranges resulting from the use of DDT, parathion, phosdrin, and TDE for the control of orangeworms. 622
- ORCHARDS**
- Toxicity of some pesticides to predacious arthropods in Ontario peach orchards. 422
- Persistence of pesticides in orchards and orchard soils. 673
- Some observations on the effects of using organochlorine sprays in an orchard. 716
- OREGON**
- Control of vetch bruchid, *Bruchid brachialis*, in Oregon. 389
- ORGANIC COMPOUNDS**
- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655
- Interaction of pesticides with natural organic material. 676
- ORGANIZATIONS**
- Organising an eradication programme for *Aedes aegypti* in the USA. 308
- ORGANOPHOSPHATES**
- Specificity in insecticides. 103
- ORGANOPHOSPHORUS COMPOUNDS**
- How to control bed bugs. 34
- Cockroach control - past, present and future. 61
- The affect of insecticides on insects. In: Eichler, W., ed., Handbook of insecticide knowledge. SB951.E4. 93
- Specificity in insecticides. 103
- Sced-corn maggot resistance to aldrin in Illinois. 105
- Insects and related pests of house plants; how to control them. 128
- The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147
- The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161
- Trial of carbophos on larvae of *Aedes* and *Culex* mosquitoes. 173
- New strategy against the codling moth. 177



# SUBJECT INDEX

## ORNAMENTAL PLANTS

- Inheritance of DDT-RESISTANCE in *Musca domestica* nebuld Fabr. 187
- The susceptibility to insecticides of *Cydia pomonella* (Linnaeus) (Lepidoptera: Tortricidae) from Queensland. 196
- Effect of temperature and humidity on the susceptibility of bedbugs to insecticides. 215
- Variability in insecticide tolerance of eighteen honey-bee colonies. 221
- Insecticide-cytoplasmic interactions in insects and vertebrates. 224
- Comparison tests between various active ingredients employed during 1966 in the control of the flea beetle of the beet (*Chaetocnema tibialis*). 226
- On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants. 246
- DDT-DEHYDROCHLORINASE activity in house fly strains resistant to various groups of insecticides. 254
- The status of insecticide resistance in populations of *Culex pipiens fatigans* Wiedemann (Diptera: Culicidae) from Queensland. 284
- Tomato yellow top. 328
- Double your cotton yield by spraying. 346
- Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347
- An estimate of the area of Danish forestry which is treated with pesticides other than herbicides. 351
- Forest entomology. 353
- Control of grassgrub and porina. 395
- Cabbage looper control in Florida - a cooperative program. 404
- Experiments on the insecticidal control of *Oxyechus fuscomaculatus* Walker (Lepidoptera: Hepialidae). 412
- Developments in insecticide control of the rice stem borer in Japan. 445
- The oriental fruit moth and its control. 463
- Note on the control of gall-fly (*Asphondylia sesami* Felt.) on sesame. 475
- Rice leafhoppers. 477
- Fifty years of research on the pink bollworm in the United States. 479
- The principle insect pests of beets and the means of their control in turkey. 482
- Essay on insecticidal treatments on the apple fruit fly, *Rhagoletis pomonella* (Walsh) in southwest Quebec. 484
- Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Bch.) and experiments in chemical control. 493
- Chemical control of *Drosicha mangiferae* (Green), a serious pest of *Citrus* spp. in Madhya Pradesh. 510

- On the distribution of pest control agents. 662
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- DDT problem at a glance. 706
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- Commercial aspects of pesticide residues in foodstuff. 793
- Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816
- Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 817
- Organochlorine pesticides in Antarctica. 857
- Residuals of pesticides in cultivated mushrooms. 870
- Pesticide residues in cultivated mushrooms. 871
- Mode of action of insecticide synergists. 932
- Combined action of DDT with chlorophos and of thiophos with chlorophos. 954
- The optimum size for insecticide spray droplets. 1003
- ORNAMENTAL PLANTS**  
Some pests of ornamental plants in Madras. 339
- ORNAMENTAL TREES**  
Notes on the syntomid moth *Lymire edwardsi* (Grote) and its control as a pest of *Ficus* in south Florida. 300
- ORYZAEPHILUS**  
Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minuthus* Oliv. 18
- ORYZAEPHILUS SURINAMENSIS**  
Temperature effects on the toxicity of five insecticides against five species of stored-product insects. 125
- OSTRINIA NUBILALIS**  
The biology of the European corn borer, *Ostrinia nubilalis* (Hubner), in Manitoba. 100
- Minimum number of insecticide applications for the control of the European corn borer on sweet corn in Quebec. 433
- Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Huhner) in Southwestern Quebec, 1967. 434
- Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967. 435
- Influence of certain insecticides applied for the control of *Ostrinia nubilalis* Hbn. on the weeds of treated surfaces. 570
- The effects of treatments against *Ostrinia* (*Pyrausta*) *nubilalis* Hb. on the production of hybrid corn. 978
- OVARIES**  
Estrogenic action of DDT and its analogs. (Abstract). 928

- OVERPRODUCTION**  
Carryover stocks of pesticides increased over 1960 level. 1054
- OVIPOSITION**  
Oviposition in DDT resistant and susceptible strains of *Aedes aegypti* (L.) in relation to light preference. 239
- Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk. 557
- OVIPOSITORS**  
Maize earworm oviposition and the effect of DDT on the egg predator complex in maize silk. 556
- OVULATION**  
Some physiological effects of sublethal doses of DDT on flour beetles. 219
- OXYDEMETONMETHYL**  
The biology and control of the *Ceanothus* stem-gall moth, *Periploca ceanothiella* (Cosens). 147
- Factors affecting the appearance of holly oaks in Southern California. 367
- OXYGEN**  
Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants. 972
- OXYOPES SALTICUS**  
Response of the striped lynx spider, *Oxyopes salticus*, to two commonly used pesticides. 191
- OYSTERS**  
Pesticide monitoring programs. 639
- Note on improved extraction for chlorinated pesticide residues in oysters. 833
- Note on improved extraction for chlorinated pesticide residues in oysters. 834
- Food chain studies. 923
- PACIFIC REGION**  
*Aedes aegypti* in the Western Pacific region. 272
- PANASOL AN-2K**  
Aromatic solvents for pesticides. 1018
- PANONYCHUS**  
Designing orchard experiments for European red mite control. 385
- Pear leaf scorch and its relation to the European red mite. 392
- PAPER**  
Silverfish: A taste for paper. 630
- PARA PARA'-DDT**  
The quantitative analyses of microgram quantities of mixtures of DDD and p,p'-DDT. 930
- PARA-NITROPHENOL**  
Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743
- PARACLEMENSIA**  
Control of maple leaf cutter, *Paraclemensia acerifoliella*, by aerial spraying. 377
- Control of maple leaf cutter, *Paraclemensia acerifoliella*, by aerial spraying. 378
- PARAFFIN OILS**  
Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculion control. 542

- Paraffinic and naphthenic oil fractions in combination with DDT and a Heliothis virus for corn earworm control. 962
- PARALOBESIA**
- Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*. 382
- Performance of Sevin against grape berry moth. 525
- PARAMYELOIS**
- The navel orangeworm in northern California. 562
- PARASITIC INSECTS**
- Insecticide resistance in *Bracon mellitor*, a parasite of the boll weevil. 28
- The old house borer in Eastern States. 38
- Bioecology and chemical control of the apple codling moth (*Carpocapsa pomonella*) L. in Mendoza. 394
- Fifty years of research on the pink bollworm in the United States. 479
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- New concepts for cattle tick control. 605
- PARASITISM**
- Neodiprion taedae linearis*: A sawfly pest of loblolly and shortleaf pines. 383
- PARATHION**
- The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 19
- Residual effect of a number of insecticides on adults of the carabid *Pseudophonus rufipes* (Dej.). 78
- Comparison of sterols in resistant and susceptible houseflies, *Musca domestica*. 85
- The biology of the European corn borer, *Ostrinia nubilalis* (Hubner), in Manitoba. 100
- Control of a corn stem weevil (*Hyperodes humilis*), and fall armyworm with DDT and parathion in South Florida. 102
- The appearance of resistance in the larva of the cotton rootborer weevil to the action of chlorinated hydrocarbons under laboratory conditions. 161
- New strategy against the codling moth. 177
- Insecticide resistance in the house fly: Decreased rate of absorption is the mechanism of action of a gene that acts as an intensifier of resistance. 182
- A comparison of chemoreceptor and whole-fly responses to DDT and parathion. 211
- Effect of insecticide poisoning on chemoreception in the house fly, *Musca domestica vicina* L. (Diptera: Muscidae). 212
- A comparison of the susceptibility of the face fly, *Musca autumnalis*, and the house fly, *M. domestica*, to insecticides in the laboratory. 225
- Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 235
- On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants. 246
- Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 276
- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 345
- Control of the castor shoot and capsule borer, *Dichrocrocis punctiferalis* Guen. 347
- Interference with the biological control of cottony-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350
- Control of the lesser peach tree borer in Virginia. 358
- Evaluation of insecticides for the control of the grape berry moth, *Paralobesia viteana*. 382
- Designing orchard experiments for European red mite control. 385
- Pear leaf scorch and its relation to the European red mite. 392
- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396
- Evaluation of chemical and microbial materials for the control of the cabbage looper. 408
- Evaluation of insecticides for control of the tobacco thrips on peanuts. 409
- Control of lesser cornstalk borer attacking groundnuts. 410
- Control of the lesser cornstalk borer attacking peanuts. 411
- Experiments for the control of sap beetles in sweet corn grown for processing. 417
- Safety of wildlife is important to planners of gnat-control program. 419
- Evaluation of new materials for codling moth control in Washington. 431
- Developments in insecticide control of the rice stem borer in Japan. 445
- DDT resistant codling moths on pears in California. 455
- The effect of *Lygus* bug control on the yield of lima beans. 460
- The oriental fruit moth and its control. 463
- Note on the control of gall-fly (*Asphondylia sesami* Felt.) on sesame. 475
- Rice leafhoppers. 477
- Control of pecan nut casebearer. 490
- Morphological-biological report of the cabbage maggot *Hylemia brassicae* (Beh.) and experiments in chemical control. 493
- Control of the tarnished plant bug, *Lygus lineolaris*, on birdsfoot trefoil grown for seed. 502
- The insects injurious to potatoes. 507
- Chemical control of *Drosicha mangiferae* (Green), a serious pest of Citrus spp. in Madhya Pradesh. 510
- Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 512
- Biology and control of morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes. 513
- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 521
- Performance of sevin against grape berry moth. 524
- Control of *Sparganothis sulfurana* on cranberry. 527
- A note on the control of the semi-cooper, *Achaea Janata* L., on castor. 534
- Insecticide and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control. 542
- Insecticide sprays for control of insects on various vegetable crops. 543
- Brief history of aphid control on potatoes in south Florida, 1946-59. 544
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 549
- Salt-marsh caterpillar control on cotton in Arizona. 567
- Field studies on the toxicity of insecticides to the mosquito fish, *Gambusia affinis*. 571
- Diagnosis and treatment of poisoning in dogs. 590
- Resistance to chlorinated hydrocarbon insecticides in the eye gnat, *Hippelates collusor*. 603
- House fly pupation under baseboards. 611
- Residues on oranges resulting from the use of DDT, parathion, phosdrin, and TDE for the control of orangeworms. 622
- Lawn and household pesticides are discussed by CSMA speakers. 633
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- On the distribution of pest control agents. 662
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670
- Persistence of certain pesticides in the soil and their effect on crop yields. 712
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- Statistical study of parathion and DDT residues on apples. 725
- Some remarks on plant protection preparation-tolerances. 733
- Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743



**PARIS GREEN**

Removal of DDT, parathion, and carbaryl from spinach by commercial and home preparative methods. 780

Cuticula of leaves and the residue problem. 788

Commercial aspects of pesticide residues in foodstuff. 793

Residuals of pesticides in cultivated mushrooms. 870

Pesticide residues in cultivated mushrooms. 871

Effect of DDT or parathion on condition avoidance response of offspring from DDT or parathion treated mothers. (abstract). 881

Pesticide residues in foods in relation to human health. 904

2-PAM for pesticide poisoning. 917

The toxicological effect on animals of mixtures of chlorophos and DDT. 927

The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931

Combined action of DDT with chlorophos and of thiophos with chlorophos. 954

Effects of some insecticides on nitrogen fractions of Bartlett pear leaf tissue. 973

Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997

Applications of polarography for the detection and determination of pesticides and their residues. 998

Report on analytical methods for pesticide formulations. 1001

Selective detection and identification of pesticide residues. 1004

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT- and parathion-resistant house-flies. 1014

Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021

The effect of the association of organic material with clays on parathion and DDT adsorption. 1028

Loss of parathion and DDT to soil from aqueous dispersions and vermiculite granules. 1031

Pesticides are blamed for 911 California injuries. 1048

Pesticide situation for 1959-60. 1049

Production of DDT continues to increase. 1053

Heavy supply and low demand. 1056

Japanese laws and regulations concerned with pesticide and food additive residues in food-stuffs. 1064

**PARIS GREEN**

The use of organochlorine insecticides and possible alternatives against leatherjackets. 541

**PARTICLE SIZE DETERMINATION**

Studies on fine-particle, coarse-particle, and concentrated aerosols. 199

Increased basic research called for at symposium on pesticide residues. 679

The selection of a solvent for use with low volume aerial spraying of cotton plants. 969

The optimum size for insecticide spray droplets. 1003

**PASTEURIZATION**

Determination of DDT residues and its metabolites in pasteurized frozen yolks by gas-liquid chromatography. 714

**PASTURE MANAGEMENT**

Porina and grassgrubs put curbs on production. 420

Grassgrub problem awaits solution. 462

**PASTURES**

Control of grassgrub and porina. 395

Insecticides and pest control. 494

DDT residues on pasture and in the butterfat of cows grazing pasture treated with DDT prills and DDTsuperphosphate. (abstract). 760

DDT and dieldrin residues on pasture following dusting and spraying. 808

Pesticide residues in dairy produce. 856

**PATENTS**

Pyridine composition and method for attracting insects. patent 3,325,355. 92

**PEA INSECTS**

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341

**PEACHES**

Control of the lesser peach tree borer in virginia. 358

Toxicity of some pesticides to predacious arthropods in Ontario peach orchards. 422

The oriental fruit moth and its control. 463

Controlling peach yellows in a peach breeding program. 480

Some effects of DDT on *Pulvinaria vitis* (L.) (Homoptera: Coccidae) infesting peach in Ontario. 491

Control of the peach tree borer on young peach trees by preplant treatment with DDT, dieldrin, and endosulfan. 515

Recovery of Sulphenone from agriculturally treated crops. 1044

**PEANUTS**

Evaluation of insecticides for control of the tobacco thrips on peanuts. 409

Control of lesser cornstalk borer attacking groundnuts. 410

Control of the lesser cornstalk borer attacking peanuts. 411

**PEAR LEAF SCORCH**

Pear leaf scorch and its relation to the European red mite. 392

**PEARS**

Biology and control of leopard moth on pear trees in the United Arab Republic. 84

DDT-RESISTANT codling moths on pears in California. 153

Pear leaf scorch and its relation to the European red mite. 392

Biology and control of leopard moth on pear trees in the United Arab Republic. 393

DDT resistant codling moths on pears in California. 455

Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. Robert J. Gould, ed. 672

Effects of some insecticides on nitrogen fractions of Bartlett pear leaf tissue. 973

Applications of polarography for the detection and determination of pesticides and their residues. 998

Recovery of Sulphenone from agriculturally treated crops. 1044

**PEAS**

Alternatives to DDT for the control of the pea moth on dry harvesting peas. 403

**PECANS**

Control of pecan nut casebearer. 490

**PECTINOPHORA GOSSYPIELLA**

Effect of DDT poisoning on the longevity and fecundity of the pink bollworm. 29

Absorption and metabolism of C14-labeled DDT by DDTsusceptible and DDT-RESISTANT pink bollworm adults. 59

Pink bollworm resistance to DDT in the Laguna area of Mexico. 65

Joint action of ddt-CONTAINING insecticide mixtures against ddt-RESISTANT pink bollworms. 149

Rate of increase in resistance to DDT in pink bollworm adults. 151

Investigations of pink bollworm resistance to DDT in Mexico and the United States. 152

Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238

Early-season application of DDT for pink bollworm control. 375

Field tests with insecticides for pink bollworm control in 1958. 461

Fifty years of research on the pink bollworm in the United States. 479

Incidence of pink bollworm resistance to DDT. 561

Effect of DDT on pink bollworm populations. 956

**PEDICULUS**

Laboratory studies on resistance of the body louse to insecticides. 67

**PEDICULUS HUMANUS HUMANUS**

Separation and purification of DDT -degrading enzymes from the human body louse. 167

The enzymatic in vitro degradation of DDT by susceptible and DDT - resistant body lice. 179

**PENGUINS**

DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844

**PENICILLIN**

Tick fever in poultry. 593

**PENTACHLORONITROBENZENE**

- Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312
- Accumulation of chlorinated hydrocarbon pesticides by microorganisms in soil. (Abstract). 657

**PENTHALEUS MAJOR**

- The blue oat mite *Penthaleus major* (Duges) (Acarina: Eupodidae). 406

**PENTYLENETETRAZOLE**

- Chlorophenothane (DDT) and glutamine in pentylenetetrazole (Cardiazole) convulsions in the rat. 913

**PEPPER (SPICE)**

- European corn borer control in peppers. 368

**PERIPLANETA**

- Action of DDT at an insect synapse. 208

**PERIPLANETA AMERICANA**

- Uptake of DDT by the American cockroach central nervous system. 79
- Temperature and the action of DDT on the nervous system of *Periplaneta americana* (L.). 80
- Chlorinated hydrocarbon insecticide inhibition of cockroach and honey bee ATPases. 138

**PERISTALSIS**

- Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

**PERITROPHIC MEMBRANE**

- Peritrophic membrane as a vehicle for DDT and DDE excretion in *Aedes aegypti* larvae. 243

**PERSISTENCE**

- The determination of DDT deposited on cotton plants in an airspray trial in Tanzania. 331
- Persistence of pesticides in orchards and orchard soils. 673

**PERTHANE**

- Pesticide residues. 873
- Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041

**PEST CONTROL**

- Superflies beat dichlorodiphenyltrichloroethane. 41
- Pesticide residues in dairy produce. 856
- Theoretical and practical aspects of room spraying. 1046

**PEST CONTROL OPERATORS**

- Pesticides are blamed for 911 California injuries. 1048

**PESTICIDE ANALYSIS**

- Techniques and preliminary data of the movement of DDT and Zectran through a forest soil. 646
- Water pesticides. 2. 674
- Quantitative measurement of combinations of aramite, DDT, toxaphene, and endrin in crop residues. 699
- Development of double isotope derivative assays for measurement of pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna, 12-16 April 1965. SB953.P32. 701
- Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743

- Distribution of p,p'-DDT residues in adipose and muscle tissues of beef cattle. 836

- Separation, identification, and measurement of DDT and its metabolites. 841

- Problems in WHO on pesticide residues. In: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna 12-16 April 1965. SB953.P32. 850

- Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006

- Ascending paper chromatography: A way to do it. 1015

**PESTICIDE APPLICATION**

- Insects and related pests of house plants; how to control them. 128
- Precision application credited with success of forest project. 338
- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487

- Pesticide residues in the ecosystem. 738

- Careful application pays off by reducing drift and residue problems. 800

- Residuals of pesticides in cultivated mushrooms. 870

**PESTICIDE RESIDUES**

- Use of *Daphnia magna* for the microbioassay of pesticides. II. Comparison of microbioassay with gas chromatography for analysis of pesticide residues in plant extracts. 8

- Use of *Daphnia magna* for the microbioassay of pesticides. I. Development of standardized techniques for rearing *Daphnia* and preparation of dosage-mortality curves for pesticides. 9

- Science and sense. As presented to the Weed Society of America, February 8, 1966. 316

- Safety of wildlife is important to planners of gnat-control program. 419

- Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569

- Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 584

- Repopulation by aquatic insects in streams sprayed with DDT. 606

- DDT yes or no. 636

- DDT: The critics attempt to ban its use in Wisconsin. 641

- Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field. 643

- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655

- DDT contamination of feed and residues in milk. 658

- Pesticides: Transatlantic movements in the Northeast trades. 667

- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668

- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670

- Increased basic research called for at symposium on pesticide residues. 679

- To ban DDT dusts and sprays. 682

- What's behind the DDT hassle. 684

- DDT is shown to persist in wood. 686

- Determining small amounts of DDT in flour and other foodstuffs. 687

- Persistent pesticides. 688

- Pesticide residues in food. 689

- No serious problem with pesticide residues. 696

- More about the pesticide residue problem. 697

- Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food. 702

- Gas chromatography with microcoulometric detection for pesticide residue analysis. 709

- Persistence of certain pesticides in the soil and their effect on crop yields. 712

- Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713

- Pesticide residues are not a problem. 717

- An epidemiologic application of the study of DDE levels in whole blood. 726

- Knowledge of basic pesticide facts can help counteract false propaganda. 727

- Residue study shows no pesticide hazard in Pacific coast seafood. 728

- Some remarks on plant protection preparation-tolerances. 733

- Pesticide residues in the ecosystem. 738

- Removal of DDT, malathion, and carbaryl from green beans by commercial and home preparative procedures. 742

- Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods. 745

- As the dust settles. A look at pesticides. 746

- Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747

- DDT reportedly discovered in antarctic seals and fish. 752

- No effect level of DDT in induction of microsomal epoxidation. 753

- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agriculture commodities. DDT. 754

- Rapid colorimetric determination of DDT in milk. 756

- Comparison of five extraction procedures for the recovery of DDT residues in field-treated col-lards. 758



# SUBJECT INDEX

## PESTICIDE SAFETY

Insecticide residues in milk and dairy products. 763

The pesticide residue problem from the FDA'S point of view. 772

Separation and measurement of perthane, DDD(TDE), and DDT in leafy vegetables by electron capture gas chromatography. 774

Metabolites:reductive dechlorination of DDT to DDD and isomeric transformation of o,p, DDT to p,p,-DDT in vivo. 775

Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs. 777

Pesticide residues in a marine population of double-crested cormorants. 778

Behavior of DDT in potatoes during commercial and home preparation. 779

Removal of DDT, parathion, and carbaryl from spinach by commercial and home preparative methods. 780

Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk. 783

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784

Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786

Cuticula of leaves and the residue problem. 788

Chlorinated hydrocarbons as residues in foods. 792

Commercial aspects of pesticide residues in foodstuff. 793

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796

Identification of pesticide residues in extracts of fruit, vegetables and animal fats III. Metabolites of chlorinated hydrocarbon pesticides in animal depot-fat. 797

Cleanup processes for pesticide residue analysis. 798

Careful application pays off by reducing drift and residue problems. 800

Drift sampling method told CAAA. 801

DDT residue studies on peppers. 804

Collaborative studies on the analysis of pesticide residues. 806

Report on chlorinated insecticides and miticides. 807

Section C: Pesticide residue content. 810

Pesticide residues in commerical animal feeds. 811

One-step cleanup of chlorinated insecticide residues by chromatography on carbon-celite mixtures. 814

Residue analysis in the dairy industry. in: Zweig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816

Residue analysis in the dairy industry. in Zwig, Analytical methods for pesticides, plant growth regulators, and food additives. vol. 1. principles, methods, and general application. 817

Investigation to determine the respective residue amounts of DDT and its analogues in the milk and back fat of selected dairy animals. 819

DDT residues absorbed from organic detritus by fiddler crabs. 824

Effect of DDT on temperature selection by young atlantic salmon, *Salmon solar*. (Abstract). 825

Tissue and fat preparation for pesticide determination by gas chromatography. 827

Retention and vooatilization of lindane and DDT in presence of organic colloids isolated from soils and leonardite. 828

Metals, other elements, and residues in foods. 831

Quantitative paper chromatography of chlorinated insecticides in soils. 837

Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840

Estimation of chlorinated pesticide residues in animal and vegetable oils. 842

Pesticide residues. 845

Problems in monitoring DDT and its metabolites in the environment. 847

Residues of DDT and it's derivatives in the fat tissues of some market animals. 854

Pesticide levels and fluctuation in soil bacteria in an irrigated field and a pond of southwest Texas. 858

Pesticide residues on fruit. V. Harvest residues of codling moth insecticides on apples. 859

Pesticide residues - USDA'S position. 860

Accumulation of DDT in fruit plantings when used continuously. 865

Determination of chlorinated pesticide residues by electroncapture gas chromatography. 867

Comparison of four extraction and cleanup procedures for chlorinated pesticide residues in eggs. 869

Residuals of pesticides in cultivated mushrooms. 870

Pesticide residues in cultivated mushrooms. 871

Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides. 872

Respiratory exposure of dairy animals to pesticides. 874

Toxic chemicals. 876

DDT residues and declining reproduction in Bermuda petrel. 877

DDT reduces photosynthesis by marine phytoplankton. 878

Pesticide residues in foods in relation to human health. 904

The toxicological effect on animals of mixtures of chlorophos and DDT. 927

Effects of pesticidal treatments on the chlorophyll content of plant parts. 965

DDT - type compounds: Separation and identification by a system combining thin layer chromatography, gas chromatography, and infrared spectroscopy. 983

Quantitative determination of pesticide residues by electron absorption chromatography: characteristics of the detector. 990

Gas chromatography for the analysis of pesticides using Aerograph electron capture detector. 994

Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997

Applications of polarography for the detection and determination of pesticides and their residues. 998

Gas chromatography using an electron absorption detector. 999

Selective detection and identification of pesticide residues. 1004

The feasibility of mass spectrometric methods in residue analysis. 1005

Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021

Determination of micro quantities of some chlorinated organic pesticide residues in edible fats and oils. 1035

Comparison of laboratory techniques for the determination of pesticide residues in milk. 1038

A.I.C.H.E. holds pesticides. 1050

Residue situation hurts DDT sales. 1059

The control of technology. solandt, o m. 1062

FDA publishes proposal for residue tolerance in milk. 1063

Japanese laws and regulations concerned with pesticide and food additive residues in food-stuffs. 1064

## PESTICIDE SAFETY

Pesticide residues are not a problem. 717

The control of technology. solandt, o m. 1062

## PESTICIDES

Dieldrin and DDT: Effects on sparrow hawk eggshells and reproduction. 183

Fewer pesticides- More control. 227

Accumulation and concentration of chlorinated hyrocarbon pesticides by microorganisms in soil. 312

Search for biological controls poses threat to nation's food supply. 315

Science and sense. As presented to the Weed Society of America, February 8, 1966. 316

Control of the white mite on cotton with various powder and dust products. 342

DDT and the farmer. 343

Toxicity of some pesticides to predacious arthropods in Ontario peach orchards. 422

Pesticides and bees. 440

New contributions to the subject 'birds and agriculture'. 574

Mississippi delta wildlife developing resistance to pesticides.	579
Effect of some pesticides on the adrenal glands in the rat.	580
Pesticide-induced enzyme breakdown of steroids in birds.	583
Pesticide storage in human fat tissue.	588
Pesticide monitoring programs.	639
Environmental pollution: Scientists go to court.	640
DDT: The critics attempt to ban its use in Wisconsin.	641
Anaerobic degradation of selected chlorinated hydrocarbon pesticides.	650
Accumulation of chlorinated hydrocarbon pesticides by microorganisms in soil. (Abstract).	657
Interaction of pesticides with natural organic material.	676
Persistent pesticides.	688
Insecticide residues: Procedure for clean up of plant extracts prior to analyses for DDT and related pesticides.	694
Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food.	702
Accumulation of DDT and dieldrin by microorganisms.	710
Pesticide residues are not a problem.	717
Knowledge of basic pesticide facts can help counteract false propaganda.	727
Pesticide testing in dairy factory laboratories.	731
Some remarks on plant protection preparation-tolerances.	733
As the dust settles. A look at pesticides.	746
Improved extraction of chlorinated hydrocarbon pesticides from animal tissues.	786
Adsorption of some pesticides on soils, clay minerals and humic acid.	791
Pesticide residues.	845
Problems in monitoring DDT and its metabolites in the environment.	847
Pesticide residues - USDA'S position.	860
Pesticides in people. Storage of DDT in the people of Israel.	866
DDT: Sublethal effects on brook trout nervous system.	884
Occupational hazards.	899
Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats.	900
The acute toxicity of pesticides to rats.	911
2-PAM for pesticide poisoning.	917

An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells.	925
Estrogenic action of DDT and its analogs. (Abstract).	928
Noteworthy poisons which are pesticides.	953
Combined action of DDT with chlorophos and of thiophos with chlorophos.	954
Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria.	967
Chlorine analysis by the schoniger oxygen flask.	987
Report on analytical methods for pesticide formulations.	989
Fundamental research is key to safe, effective pesticides.	1013
Granular insecticides' their history and literature.	1023
3,6,9,10-tetrahalogenphenanthrene. A new cyclarylation reaction of DDT derivatives.	1032
Formulation analysis: The effect of different storage treatments on the susceptibility, agglomeration and deterioration of surfactants of DDT water-dispersible powders.	1043
Pesticides are blamed for 911 California injuries.	1048
A.I.C.H.E. holds pesticides.	1050
1962 pesticide exports show gain during first half.	1052
Carryover stocks of pesticides increased over 1960 level.	1054
A good year for pesticide sales.	1055
Pesticide exports from U.S. increase by 22 per cent in 1962.	1057
Is there room for U.S. firms in the European pesticide market.	1058
Living safely with pesticides trough education and understanding.	1060
Effects of 'the use of pesticides' from an industrial viewpoint.	1061
<b>PETROLEUM</b>	
Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.	132
Effects on wild young salmon of spraying DDT over New Brunswick forests.	644
Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary.	656
Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations.	926
Petroleum fractions as DDT solvents.	1024
<b>PHAENICIA SERICATA</b>	
Dieldrin resistance in <i>Lucilia sericata</i> (Meig) from Co. Dublin, Eire.	203
Houseflies, blowflies and cluster flies.	610

<b>PHAGOCYTES</b>	
An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells.	925
<b>PHALTAN</b>	
Performance of sevin against grape berry moth.	524
<b>PHEASANTS</b>	
Seed dressings and game birds.	585
<b>PHENANTHRENES</b>	
3,6,9,10-tetrahalogenphenanthrene. A new cyclarylation reaction of DDT derivatives.	1032
<b>PHENOXY ACID COMPOUNDS</b>	
Interaction of pesticides with natural organic material.	676
<b>PHEROMONES</b>	
Specificity in insecticides.	103
<b>PHIX</b>	
Influence of pesticides on fruit set, return bloom, yield and fruit size of the apple.	732
<b>PHLEBOTOMUS</b>	
Insecticide susceptibilities of <i>Phlebotomus papatasi</i> (Scopoli) from Egypt and the Sudan.	201
<b>PHLOEOTRIBUS</b>	
The damage brought about by <i>Phloeotribus</i> .	474
<b>PHOMA</b>	
Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots.	314
<b>PHORATE</b>	
Seed-corn maggot resistance to aldrin in Illinois.	105
Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq.	341
European corn borer control in potatoes.	362
Observations on soybean insects in maryland.	498
Biology and control of the apple seed chalcid in North Carolina.	530
Report on analytical methods for pesticide formulations.	989
<b>PHOSPHAMIDON</b>	
The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	19
Carbaryl, phosphamidon, and DDT tests on the western hemlock looper in Washington.	58
Studies on the Sitka spruce weevil, <i>Pissodes sitchensis</i> , in British Colombia.	206
Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq.	341
European corn borer control in potatoes.	362
Bioecology and chemical control of the apple codling moth ( <i>Carpocapsa pomonella</i> ) L. in Mendoza.	394
Effectiveness of insecticides against the European maize borer and green peach aphid on peppers.	427
Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.	428
Field experiments on the insecticidal control of insects attacking peas, snap and lima beans.	499



# SUBJECT INDEX

## PHOSPHATES

- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926
- Laboratory evaluation of DDT and phosphamidon on the western hemlock looper, *Lambdina fiscellaria lugubrosa* (Hulst). 940

## PHOSPHATES

- Status and control of the corn stem weevil in the Florida Everglades. 439

## PHOSPHOROTHIOIC ACID ESTERS

- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670

## PHOSPHORUS ISOTOPES

- Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera). 523

## PHOTOPERIODISM

- The susceptibility of house flies reared under various photoperiods to insecticide residues. 748

## PHOTOSENSITIZATION

- Change in the photic reaction due to DDT in the grain weevil, *Sitophilus granarius* (L.) (Coleoptera: Curculionidae). 47

## PHOTOSYNTHESIS

- DDT reduces photosynthesis by marine phytoplankton. 878
- Effect of DDT on photosynthesis in certain varieties of barley. 975

## PHYSIOLOGY

- Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA. 205
- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 586
- Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713
- Interaction of DDT with the components of lobster nerve membrane conductance. 935

## PHYTOMETRA

- Some pests of ornamental plants in Madras. 339

## PICEA

- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- Aerial forest spraying against spruce budworm - A problem of mutual interest in Canada and the United States. 566

## PICEA SITCHENSIS

- Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Columbia. 206

## PIGEONS

- New contributions to the subject 'birds and agriculture'. 574
- Pesticide-induced enzyme breakdown of steroids in birds. 583

## PIGMENTS (INSECT)

- Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192

## PINE NEEDLES

- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516

## PINUS

- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 371
- Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 390
- The effects of DDT and malathion upon forest soil microarthropods. 418
- Experiments with concentrated DDT sprays for European pine shoot moth suppression in forest plantations. 466
- Suppression of the Saratoga spittlebug, *Aphrophora saratogensis* (Fitch), with malathion in Michigan pine plantations. 467
- Insecticidal control for the pine looper in Great Britain. I. Aerial spraying. 553

## PINUS BANKSIANA

- The influence of seasonal DDT applications upon arthropod populations in jack pine stands. 508

## PINUS ECHINATA

- Neodiprion taedae linearis*: A sawfly pest of loblolly and shortleaf pines. 383

## PINUS RESINOSA

- The European pine shoot moth; ecology and control in the Lake States. 465

## PINUS SYLVESTRIS

- The damaging occurrence of *Aradus cinnamomeus* Panz. in Sweden. 361

## PIPERONYL BUTOXIDE

- Responses of raisin moth larvae to residues of six insecticidal sprays. 631

- Metals, other elements, and residues in foods. 831

- The metabolism of contact insecticides in stored grains. 946

- On the toxicology of Pyrethrum to warm blooded animals. 1030

- Water-base insecticides. 1036

## PIROPLASMOSIS

- Tick fever in poultry. 593

## PISSODES SITCHENSIS

- Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Columbia. 206

## PLAGUE

- Summary of recent abstracts. VI. Plague. 283

## PLANKTON

- DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide. 678
- DDT reduces photosynthesis by marine phytoplankton. 878

## PLANT BIOCHEMISTRY

- DDT toxicity in rye (*Secale* spp.). 924
- Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of *Phaseolus aureus* (green gram). 971
- Biochemical investigations into the effect of DDT on barley. 974

- Some biochemical investigations into susceptibility of barley varieties to DDT. 977

## PLANT BREEDING

- Controlling peach yellows in a peach breeding program. 480
- DDT toxicity in rye (*Secale* spp.). 924
- New developments in hybrid barley research. 970

## PLANT DISEASES

- A summary of forest and shade tree insect-disease conditions for Maine 1967. 4
- A leaf disorder of cacao in Costa Rica. 330
- Factors affecting the appearance of holly oaks in Southern California. 367
- Pests and diseases threatening our cherries. 520

## PLANT DWARFING

- Some effects of toxaphene-DDT and calcium arsenate on growth and development of cotton. 964

## PLANT EXTRACTS

- Control of earthworm. 573
- Insecticide residues: Procedure for clean up of plant extracts prior to analyses for DDT and related pesticides. 694

## PLANT GENETICS

- DDT resistance in barley, *Hordeum vulgare* - I. Induced mutants for resistance. 319
- DDT toxicity in rye (*Secale* spp.). 924
- New developments in hybrid barley research. 970
- Effect of DDT on photosynthesis in certain varieties of barley. 975

## PLANT GROWTH INHIBITORS

- DDT deposits on grapes as affected by growth and weathering. 855

## PLANT HARDINESS

- DDT resistance in barley, *Hordeum vulgare* - I. Induced mutants for resistance. 319
- Effect of DDT on photosynthesis in certain varieties of barley. 975

## PLANT HOSTS

- Investigations of the possibility of host specific strains of the bollworm and tobacco budworm in Mississippi. 210

## PLANT INJURIES

- Controlling the Japanese beetle. 36
- Early season insects no problem for B. A. Jordan. 39
- Neodiprion taedae linearis*: A sawfly pest of loblolly and shortleaf pines. 383
- Insecticidal field treatments for the control of the European corn borer, *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967. 434
- Bloodworms - pests of rice. 442
- Capsid bugs on fruit. 469
- New contributions to the subject 'birds and agriculture'. 574
- DDT toxicity in rye (*Secale* spp.). 924
- New developments in hybrid barley research. 970

Some biochemical investigations into susceptibility of barley varieties to DDT.	977	Controlling peach yellows in a peach breeding program.	480	DDT problem at a glance.	706
<b>PLANT INSECT RESISTANCE</b>		Effect of climatic factors on the susceptibility of insects to insecticides.	514	The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum.	887
Fifty years of research on the pink bollworm in the United States.	479	A note on the control of the semi-cooper, <i>Achaea Janata</i> L., on castor.	534	Search for new insecticides.	890
<b>PLANT MORPHOLOGY</b>		Bark beetles.	539	Pharmacodynamic study of DDT in cockerels.	905
Growth and development of cotton as affected by toxaphene, DDT, methyl parathion, and calcium arsenate.	366	New contributions to the subject 'birds and agriculture'.	574	2-PAM for pesticide poisoning.	917
<b>PLANT MUTATION</b>		Some remarks on plant protection preparation-tolerances.	733	<b>POISONS</b>	
DDT resistance in barley, <i>Hordeum vulgare</i> - I.	319	DDT toxicity in rye ( <i>Secale</i> spp.).	924	Noteworthy poisons which are pesticides.	953
Induced mutants for resistance.		<b>PLANT TRANSLOCATION</b>		<b>POLAROGRAPHY</b>	
<b>PLANT NEMATODES</b>		DDT-C 14 translocation in alfalfa.	537	An investigation of the oscillography of DDT and certain analogs.	750
The insects injurious to potatoes.	507	Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966.	690	Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography.	997
<b>PLANT PEST CONTROL</b>		<b>PLANT WATER RELATIONS</b>		Applications of polarography for the detection and determination of pesticides and their residues.	998
Biology and control of leopard moth on pear trees in the United Arab Republic.	84	Water flora as indicators of irrigation water contamination by DDT.	675	The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography.	1011
The biology and control of the <i>Ceanothus</i> stem-gall moth, <i>Periploca ceanothiella</i> (Cosens).	147	<b>PLANTATIONS</b>		Screening methods for organochlorine and organophosphate insecticides in foods and feeds.	1021
Grass grub problem awaits solution.	462	Investigations on the biology and control of <i>Melolontha melolontha</i> in hazelnut plantations.	533	<b>POLISTES</b>	
Essay on insecticidal treatments on the apple fruit fly, <i>Rhagoletis pomonella</i> (Walsh) in southwest Quebec.	484	<b>PLANTS</b>		Controlling wasps.	35
Control of earthworm.	573	On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants.	246	<b>POLYHEDROSES</b>	
<b>PLANT PEST RESISTANCE</b>		<b>PLASMODIUM</b>		The effects of chemical insecticides and insecticidal adjuvants of a <i>Heliothis</i> nuclear polyhedrosis virus.	123
Effect of DDT on control of corn earworms in sweet corn entries selected for varying resistance.	545	Prospects for the eradication of malaria in Algeria.	282	Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia.	429
<b>PLANT PHYSIOLOGICAL DISEASES</b>		The United States and malaria: Debits and credits.	294	Paraffinic and naphthenic oil fractions in combination with dDT and a <i>Heliothis</i> virus for corn earworm control.	962
Diseases and parasites of the rose.	322	<b>PLECOPTERA</b>		<b>POLYMORPHISM</b>	
<b>PLANT PHYSIOLOGY</b>		Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.	121	Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in <i>Drosophila pseudoobscura</i> .	244
Sensorial analysis on tubers of native potatoes treated with insecticides.	321	Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.	132	<b>PONDS</b>	
The influence of infestation by early shoot borer <i>Chiloptera infuscatellus</i> Sn. on shoot production and yield of sugarcane.	496	Apparent DDT tolerance in an aquatic insect disproved by test.	214	A field evaluation of abate briquettes in woodland pools.	270
Some effects of DDT, dieldrin, dimethoate and fenthion on growth of cucumbers.	966	Repopulation by aquatic insects in streams sprayed with DDT.	606	Distribution of heptachlor residues in pond ecosystems in southwestern Virginia.	868
Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria.	967	<b>PLESIOCORIS RUGICOLLIS</b>		<b>POPILLIA</b>	
Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract).	968	Capsid bugs on fruit.	469	Micronised insecticidal dusts for aircraft disinsection.	218
Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of <i>Phaseolus aureus</i> (green gram).	971	<b>PLUTELLA MACULIPENNIS</b>		Effectiveness of several insecticidal aerosols against the Japanese beetle.	632
Effects of some insecticides on nitrogen fractions of Bartlett pear leaf tissue.	973	Cabbage looper control in Florida - a cooperative program.	404	<b>POPILLIA JAPONICA</b>	
Pesticide effects in soils on nitrification and plant growth.	976	<b>POISONING</b>		Controlling the Japanese beetle.	36
<b>PLANT PROTECTION</b>		Effect of DDT poisoning on the longevity and fecundity of the pink bollworm.	29	Insecticidal dusts against Japanese beetles and European chafers for disinsection of transport vehicles.	87
Early season insects no problem for B. A. Jordan.	39	Interactions of DDT with the nervous system of the resistant and susceptible german cockroaches.	109	Micronized insecticidal dusts for aircraft disinsection.	951
Resistance: A discussion of its impact on plant protection.	307	Bee poisoning versus clover seed weevil control in white dutch clover grown for seed.	441	<b>POPULATION</b>	
Changes in usage of plant protection preparations during the last fifteen years.	310	Relation between DDT in diets of laying birds and viability of their eggs.	582	Population dynamics of spider mites influenced by DDT.	5
Control of the castor shoot and capsule borer, <i>Dichocrocis punctiferalis</i> Guen.	347	Diagnosis and treatment of poisoning in dogs.	590		
Reducing DDT persistence.	388				



**POPULATION STATISTICS**

- An ecological study of arthropod populations on apple in northeastern Wisconsin: insect species present. 16
- Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva. 134
- Genetics of natural populations. XXXIX. A test of the possible influence of two insecticides on the chromosomal polymorphism in *Drosophila pseudoobscura*. 244
- On the determination of insect and mite resistance to pesticides. The influence of these products in sublethal doses on animals and in the trophic effect following biochemical repercussions on plants. 246
- Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967. 435
- Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438
- The influence of spray programs on the fauna of apple orchards in Nova Scotia. XI. effects of low dosages of DDT on predator populations. 453
- New contributions to the subject 'birds and agriculture'. 574
- The effects of DDT on a breeding population of the rufous-sided towhee (*Pipilo e. erythrophthalmus* Linnaeus). 578
- Pesticide-induced enzyme breakdown of steroids in birds. 583
- Effect of DDT on pink bollworm populations. 956

**POPULATION STATISTICS**

- Biology and control of native and introduced forest insects in the Nearctic Zone. 6
- An ecological approach to the insecticide problem. 17

**PORPHYRINS**

- Problems in monitoring DDT and its metabolites in the environment. 847

**PORTHETRIA**

- New Jersey court upholds gypsy moth spraying. 22
- Prior local approval is key to successful spray programs. 332
- Aerial spray tests against gypsy moth. *Porthetria dispar* in New York. 379
- The persistence of gypsy moth parasites in heavily sprayed areas on Cape Cod, Massachusetts. 391
- DDT residues on New York dairy farms following the gypsy moth eradication program. 765
- DDT residues on New York dairy farms following the gypsy moth eradication programme. 766

**PORTHETRIA DISPAR**

- Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests. 64
- The gypsy moth threat in America. 320
- Those hungry gypsies (Photo story). 423

**POTASSIUM**

- Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192

**POTATOES**

- Sensorial analysis on tubers of native potatoes treated with insecticides. 321
- Resistance to organochlorine insecticides in the tuber flea beetle, *Epithrix tuberis* Gent (Coleoptera: Chrysomelidae), in British Columbia. 349
- European corn borer control in potatoes. 362
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 428
- Laboratory studies of three-lined potato beetle and control with various insecticides. 446
- The insects injurious to potatoes. 507
- Brief history of aphid control on potatoes in south Florida, 1946-59. 544
- Control of the potato tuberworm in potatoes. 550
- Behavior of DDT in potatoes during commercial and home preparation. 779
- Residues in vegetable crops following soil applications of insecticides. 822

**POULTRY**

- Control of the boll weevil on cotton with ultra-low-volume (undiluted) technical malathion. 68
- Tick fever in poultry. 593
- Rapid semimicro-one-step chromatographic cleanup of chlorinated hydrocarbon pesticide residues in poultry and eggs. 777

**POULTRY DISEASES**

- Tick fever in poultry. 593

**POWDERY MILDEW (APPLES)**

- Influence of insecticide-fungicide spray programmes on growth of apple nursery trees. 324

**PREDACEOUS INSECTS**

- The old house borer in Eastern States. 38
- Setting up a method for control of clover weevils. 352
- Toxicity of some pesticides to predaceous arthropods in Ontario peach orchards. 422
- The influence of spray programs on the fauna of apple orchards in Nova Scotia. XI. effects of low dosages of DDT on predator populations. 453
- Fifty years of research on the pink bollworm in the United States. 479
- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 521
- Corn earworm oviposition and the effect of DDT on the egg predator complex in corn silk. 557
- Can we conquer the 'mighty' mites. 558
- Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888

**PREPLANT TREATMENT**

- Control of the peach tree borer on young peach trees by preplant treatment with DDT, dieldrin, and endosulfan. 515

**PREVENTIVE MEDICINE**

- Importance of pesticides in preventive medicine. 280

**PROLINE**

- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Metabolism of injected proline in DDT-POISONED German cockroaches. 120

**PROPAGINE**

- The feasibility of mass spectrometric methods in residue analysis. 1005

**PROSAPIA**

- Biology and control of the spittlebug *Prosapia bicincta* in coastal bermuda grass. 175

**PROTEINS**

- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Protein-deficient diet and DDT toxicity. 587
- Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of HeLa S cells. 713
- Studies of DNA, RNA, and protein synthesis in HeLa S cells exposed to DDT and dieldrin. 896
- Estrogenic action of DDT and its analogs. (Abstract). 928
- DDT-INDUCED metabolic changes in rat liver. 947

**PSALLUS**

- Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387

**PSALLUS SERIATUS**

- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 485

**PSEUDOCOCCIDAE**

- Pests of legume seed crops in north Queensland. 509

**PSEUDOMONAS FLUORESCENS**

- Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria. 967
- Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract). 968

**PSEUDOMONAS PISCICIDA**

- Food chain studies. 923

**PSEUDOTSUGA MENZIESII**

- Mites collected from Douglas-fir foliage in Montana. 7

**PSYLLA PYRICOLA**

- The influence of three insecticides on predation of the pear psylla, *Psylla pyricola*. 160

**PUBLIC HEALTH**

- Eradication versus control in communicable disease prevention. 298
- Occupational hazards. 899
- Living safely with pesticides through education and understanding. 1060

**PUBLICITY**

- Spray controversy hinders efficient control operations. 309

**PUERTO RICO**

- Dieldrin-resistance in a strain of *Aedes aegypti* (L.) from Puerto Rico. 97

**PUPAE**

- Controlling fluctuations of duration of developmental period in *Drosophila*. 172
- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396
- House fly pupation under baseboards. 611

**PYRALIDAE**

- Developments in insecticide control of the rice stem borer in Japan. 445
- The influence of infestation by early shoot borer *Chilo tracia infuscatellus* Sn. on shoot production and yield of sugarcane. 496
- Recent developments in and future prospects for the chemical control of the rice stem borer in India. 497
- Don't take lightly these brinjal borers. 518

**PYRAUSTA**

- European corn borer control in potatoes. 362
- European corn borer control in peppers. 368
- European maize borer control in peppers. 369
- Effectiveness of insecticides against the European maize borer and green peach aphid on peppers. 427

**PYRAUSTIDAE**

- Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen. 347

**PYRETHRUM**

- How to control bed bugs. 34
- Cockroach control - past, present and future. 61
- Specificity in insecticides. 103
- The length of larval stage in Pyrethroid-resistant and susceptible strains of the house fly, *Musca domestica* L. 108
- Studies on fine-particle, coarse-particle, and concentrated aerosols. 199
- Insecticide-cytoplasmic interactions in insects and vertebrates. 224
- Possible pleiotropism of a gene conferring resistance to DDT, DDT analogs, and pyrethrins in the house fly and *Culex tarsalis*. 261
- Review of classical malaria control measures. 271
- Malaria and victory in Vietnam. 288
- Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia. 429
- Giant coffee looper, *Ascotis selenaria reciprocata*, and its control. 540
- Saving stored rice from attacks of insect pests. 628
- Some insecticidal trials for the protection of til seeds in storage. 629
- Responses of raisin moth larvae to residues of six insecticidal sprays. 631
- Effectiveness of several insecticidal aerosols against the Japanese beetle. 632
- Mode of action of insecticide synergists. 932

- The metabolism of contact insecticides in stored grains. 946
- On the toxicology of Pyrethrum to warm blooded animals. 1030
- Water-base insecticides. 1036

**PYRETHRUM-PIPERONYL BUTOXIDE**

- Laboratory evaluation of insecticides against the cigarette beetle. 894

**PYRIDINE COMPOUNDS**

- Pyridine composition and method for attracting insects. patent 3,325,355. 92

**QUANTITATIVE ANALYSIS**

- The quantitative analyses of microgram quantities of mixtures of DDD and p,p'DDT. 930

**QUARANTINE**

- No serious problem with pesticide residues. 696

**QUEBEC**

- Control of a spruce budworm outbreak in Quebec through aerial spraying operations. 356

**QUERCUS ILEX**

- Factors affecting the appearance of holly oaks in Southern California. 367

**QUINONES**

- Some physiological effects of sublethal doses of DDT on flour beetles. 219

**RABBITS**

- Production of antibodies against insecticide-protein conjugates. 757

**RADIATION**

- New strategy against the codling moth. 177
- Photochemical decomposition of DDT by a free-radical mechanism. 1016

**RADIOACTIVE SUBSTANCES**

- Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996

**RADIOACTIVE TRACERS**

- Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*. 77
- Toxicology and physiology of DDT resistance in the German cockroach. 117
- The metabolism of C-14 labeled DDT in larvae, pupae, and adults of *Drosophila melanogaster*. 162
- Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths. 195
- Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera). 523
- The accumulation of 36Cl ring-labeled DDT in a freshwater marsh. 663
- Excretion of DDT by migratory birds. 762
- Kinetics of Cl-36 DDT in wild waterfowl. 902
- The apparent binding of ddt to tissue components. 915
- The penetration and metabolism of C14 - labeled DDT in resistant and susceptible tobacco budworm larvae, *Heliothis virescens* (F.). 957

**RADIOACTIVITY**

- Retention and volatilization of lindane and DDT in presence of organic colloids isolated from soils and Leonardite. 828

**RADIOISOTOPES**

- Distribution of C14-DDT and C14-dieldrin in pregnant mice determined by whole-body autoradiography. 634
- Effects of insecticides on algae. 895

**RADISHES**

- Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon. 691

**RAINFALL**

- A preventive boll weevil control program applied to a tensquare-mile area within an untreated county. 472
- Effect of climatic factors on the susceptibility of insects to insecticides. 514
- Field weathering of toxaphene and chlordane. 776

**RAISINS**

- Responses of raisin moth larvae to residues of six insecticidal sprays. 631

**RAPE**

- Indications on plant care for olive crop cultivation. 430
- Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera). 523

**RAPHOPLUSIA**

- Problems in the control of mint insects. 401

**RASPBERRIES**

- Raspberry moth. 468

**RATS**

- Effect of some pesticides on the adrenal glands in the rat. 580
- Protein-deficient diet and DDT toxicity. 587
- Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE. 591
- Evidence for conversion of DDT to TDE in rat liver: II. Conversion of p,p'DDT to p,p'TDE in axenic rats. 592
- Effects of DDT on brain electrical activity in awake, unrestrained rats. 596
- No effect level of DDT in induction of microsomal epoxidation. 753
- Interaction of DDT and the gastrointestinal microflora of the rat. 892
- Storage and excretion of DDT in starved rats. 898
- Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats. 900
- The early effects of low DDT doses on the nervous system in animal experiments. 901
- The effect of DDT in the diet on the resting and loading electrocorticogram record. 906
- The acute toxicity of pesticides to rats. 911



# SUBJECT INDEX

## RED CLOVER

Chlorophenothane (DDT) and glutamine in pentylenetetrazole (Cardiazole) convulsions in the rat. 913

The apparent binding of dDT to tissue components. 915

Concentration of DDT in brain and other tissues in relation to symptomatology. 916

An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells. 925

The toxicological effect on animals of mixtures of chlorophos and DDT. 927

Estrogenic action of DDT and its analogs. (Abstract). 928

Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of halothane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938

DDT-INDUCED metabolic changes in rat liver. 947

Metabolic products of p,p'-DDT in the rat. 1020

## RED CLOVER

Setting up a method for control of clover weevils. 352

## REDPEPPERS (VEGETABLE)

European maize borer control in peppers. 369

DDT residue studies on peppers. 803

DDT residue studies on peppers. 804

## REDUVIIDAE

Glutathione turnover in *Triatoma infestans* treated with 2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane. 124

## REGRESSION ANALYSIS

Toxicology and physiology of DDT resistance in the German cockroach. 117

## REGULATION (PESTICIDES)

Persistent pesticides. 688

University of Wisconsin scientists discuss insecticides and pollution. 695

Pesticide residues - USDA'S position. 860

## REGULATIONS

Fewer pesticides- More control. 227

DDT yes or no. 636

## REPRODUCTION

Dieldrin and DDT: Effects on sparrow hawk eggshells and reproduction. 183

The effects of DDT and sublethal doses of dicofol on reproduction of the two-spotted spider mite. 188

Some physiological effects of sublethal doses of DDT on flour beetles. 219

Effects of sublethal doses of DDT on the reproduction and susceptibility of *Culex pipiens* L. 303

Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576

The effect of DDT on reproduction in mice. 577

The effect of DDT on reproduction in mice. 598

Pesticide residues in a marine population of double-crested cormorants. 778

Reproduction in brook trout (*Salvelinus fontinalis*) fed sublethal concentrations of DDT. 790

DDT residues and declining reproduction in Bermuda petrel. 877

Effect of DDT or parathion on condition avoidance response of offspring from DDT or parathion treated mothers. (abstract). 881

Ecological and nutritional studies on *Coleomegilla maculata* DeGeer (Coleoptera: Coccinellidae). III. The effect of DDT, toxaphene, and endrin on the reproductive and survival potentials. 886

## REPRODUCTIVE ORGANS

An autoradiographic study of invertebrate uptake of DDT-CL36. 232

## REPTILES

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

## RESEARCH

Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts. 3

Superflies beat dichlorodiphenyltrichloroethane. 41

Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm. 104

DDT-RESISTANCE in two strains of *Culex pipiens pipiens* Linnaeus from New Jersey. 111

Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438

Fifty years of research on the pink bollworm in the United States. 479

Can we conquer the 'mighty' mites. 558

The effect of DDT on reproduction in mice. 577

DDT contamination of feed and residues in milk. 658

Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food. 702

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784

The toxicity and sublethal effects of p,p'-DDT and dieldrin to *Aglais urticae* (L.) (Lepidoptera: Nymphalidae) and *Chorthippus brunneus* (Thunberg) (Saltatoria:Acrididae). 818

Search for new insecticides. 890

## RESERVOIRS

Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017

## RESIDUES

Responses of raisin moth larvae to residues of six insecticidal sprays. 631

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722

The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 751

Degradation of DDT in Atlantic salmon (*Salmo salar*). 755

Persistence of DDT, aldrin, and lindane in some midwestern soils. 787

Residues in eggs and tissues of chickens on rations containing low levels of DDT. 789

DDT residue studies on peppers. 803

Residues in vegetable crops following soil applications of insecticides. 822

Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. 848

DDT deposits on grapes as affected by growth and weathering. 855

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

Pesticides. 1025

# SUBJECT INDEX

## SEASONAL APPLICATIONS

- Estrogenic action of DDT and its analogs. (Abstract). 928
- DDT-INDUCED metabolic changes in rat liver. 947
- RICE**
- Control of the tadpole shrimp, *Triops longicaudatus* in California rice fields. 407
- Bloodworms- pests of rice. 442
- Developments in insecticide control of the rice stem borer in Japan. 445
- Rice leafhoppers. 477
- Recent developments in and future prospects for the chemical control of the rice stem borer in India. 497
- Saving stored rice from attacks of insect pests. 628
- RISELLA OIL**
- Effects on resistance of exposure of houseflies to sub-lethal and partially lethal doses of DDT. 217
- RODENTS**
- Summary of recent abstracts. VI. Plague. 283
- RODOLIA**
- Interference with the biological control of cotton-cushion scale by insecticides and attempts to re-establish a favorable natural balance. 350
- ROE**
- Problems with DDT in fish culture operations. 720
- RONNEL**
- Use of *Daphnia magna* for the microbioassay of pesticides. I. Development of standardized techniques for rearing *Daphnia* and preparation of dosage-mortality curves for pesticides. 9
- How to control bed bugs. 34
- Variability in insecticide tolerance of eighteen honey-bee colonies. 221
- WARF anti-resistant: DDT selection and house fly crossresistance. 247
- Entomologists exchange '59 research results. 305
- Field studies of house fly resistance to organophosphorus insecticides. 604
- Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608
- Collection and analysis of synthetic organic pesticides from surface and ground water. 652
- Comparisons of residues in milk resulting from two types of spray applications of DDT, SHELL COMPOUND 4072, and ronnel. 715
- Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly. 888
- ROOTS**
- Bloodworms- pests of rice. 442
- DDT-C14 translocation in alfalfa. 537
- Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840
- Effect of dichloro diphenyl trichloro-ethane (DDT) on leghemoglobin content of root nodules of *Phaseolus aureus* (green gram). 971
- ROSA**
- Diseases and parasites of the rose. 322
- ROTENONE**
- Destruction of wasps. 40
- Insects and related pests of house plants; how to control them. 128
- Insect control for garden vegetables. 311
- Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions. 318
- Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions. 470
- RUMEN**
- Metabolism of DDT by rumen microorganisms in vitro. (Abstract). 996
- RUTABAGAS**
- Residues in vegetable crops following soil applications of insecticides. 822
- RYANIA**
- The influence of three insecticides on predation of the pear psylla, *Psylla pyricola*. 160
- RYE**
- DDT toxicity in rye (*Secale* spp.). 924
- SABADILLA**
- Report on analytical methods for pesticide formulations. 1001
- SADDLE-BACKED LOOPER**
- Laboratory study on the contact toxicity of DDT to *Ectropis crepuscularia* Schiff. 939
- SALES**
- A good year for pesticide sales. 1055
- Residue situation hurts DDT sales. 1059
- SALMON**
- One hundred planes to spray budworm in New Brunswick. 546
- DDT: Criticism, curbs are on the upswing. 665
- In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- DDT residues and metabolites in Canadian Atlantic coast fish. 734
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 744
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 755
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770
- Effect of DDT on temperature selection by young Atlantic salmon, *Salmo salar*. (Abstract). 825
- Degradation of DDT in Atlantic salmon (*Salmo salar*). 914
- SANITATION**
- Prospects for the eradication of malaria in Algeria. 282
- SANNINOIDEA EXITIOSA**
- Control of the peach tree borer on young peach trees by preplant treatment with DDT, dieldrin, and endosulfan. 515
- SAPERDA CALCARATA**
- Maryland arborists discuss insect control. 458
- SAPONIFICATION**
- Cleanup processes for pesticide residue analysis. 798
- SAPROPHYTES**
- Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants. 972
- SARCOPHAGA**
- Houseflies, blowflies and cluster flies. 610
- SCARABAEIDAE**
- Cockchafer, *Melolontha melolontha*, L. and *M. hippocastani*, Fabr. 127
- Grass grub problem awaits solution. 462
- Pasture cockchafer control interim revised control recommendation. 526
- SCHISTOCERCA GREGARIA**
- The influence of site application on the toxicity of insecticides in red cotton bug, *Dysdercus cingulatus*, F. 190
- Studies on the metabolism of DDT in the desert locust by paper chromatography. 216
- SCHRADAN**
- Insecticides as a factor in population fluctuations of mites on lucerne. 337
- Pesticide residues in foods in relation to human health. 904
- SCOLYTIDAE**
- Bark beetles. 539
- SCOLYTUS**
- An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, *Scolytus multistriatus*. 955
- SCOLYTUS MULTISTRIATUS**
- An evaluation of certain compounds as feeding deterrents against the smaller European elm bark beetle, *Scolytus multistriatus*. 955
- SCORPIONIDA**
- The effect of residual deposits of insecticides on the scorpion, *Centruroides vittatus*. 193
- SCREENS**
- The effectiveness of chemically treated screens in killing annoying punkies, *Culicoides obsoletus*. 285
- SD 4402**
- Loss of activity of chlorinated hydrocarbon insecticides in soil as measured against the Eye gnat, *Hippelates collusor*. 24
- Control of lesser cornstalk borer attacking groundnuts. 410
- Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 476
- The cotton leaf perforator and its control in Arizona. 531
- SD-4402**
- Control of the lesser cornstalk borer attacking pecan nuts. 411
- SEAFOOD**
- Residue study shows no pesticide hazard in Pacific coast seafood. 728
- SEASONAL APPLICATIONS**
- Early-season application of DDT for pink bollworm control. 375



# SUBJECT INDEX

## SEASONAL VARIATION

### SEASONAL VARIATION

A field evaluation of abate briquettes in woodland pools. 270

Rice leafhoppers. 477

### SEASONS

Seasonal history and response to insecticides of *Heliothis* species on cotton. 559

### SEDIMENTS

Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017

### SEED DRESSINGS

Seed dressings and game birds. 585

### SEED GERMINATION

Bloodworms- pests of rice. 442

Some insecticidal trials for the protection of til seeds in storage. 629

### SEED TREATMENT

Penetration of seeds by acetone solutes. 334

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq. 341

Control of onion fly, *Delia antiqua*, with seed dressings. 372

### SEEDLINGS

Bloodworms- pests of rice. 442

Apple chalcid, *Torymus varians* (Wlk.), (Hymenoptera: Torymidae), in Quebec. 503

Biology and control of the apple seed chalcid in North Carolina. 530

DDT-C14 translocation in alfalfa. 537

Crop seedling uptake of DDT, dieldrin, endrin, and heptachlor from soils. 569

### SEEDS

New insecticides for lygus bug control on vegetable seed crops. 373

Some recommendations for the control of perforators of seeds of Anonaceae (*Bephrata* sp. order Hymenoptera). 500

Pests of legume seed crops in north Queensland. 509

Pesticide residues in food. 689

Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690

### SENSE ORGANS

The response of the labellar taste receptors of DDT-RESISTANT and non-resistant houseflies (*Musca domestica*) to DDT. 57

### SEROLOGICAL TESTS

Production of antibodies against insecticide-protein conjugates. 757

### SEROTONIN

Electrographic recording of foregut activity in larvae of *Galleria mellonella*. 49

### SESAME

Note on the control of gall-fly (*Asphondylia* sesami Felt.) on sesame. 475

Some insecticidal trials for the protection of til seeds in storage. 629

### SESAMEX

Two types of sesamex-suppressible resistance in the housefly. 260

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT- and parathion-resistant house-flies. 1014

### SEX

Linkage of gold, its recessive lethality and sex-related variation in crossing-over in *Culex pipiens* (Diptera: Culicidae). 257

### SEX ATTRACTANTS

Specificity in insecticides. 103

### SEX RATIOS

Investigations on the biology and control of *Melolontha melolontha* in hazelnut plantations. 533

### SHEEP

Sheep ectoparasite control. i. insecticides and application methods for keds and biting lice. 608

The effect of even or uneven applications of DDT prills to pasture on DDT residues in stock. 761

### SHELL COMPOUND 4072

Comparisons of residues in milk resulting from two types of spray applications of DDT, SHELL COMPOUND 4072, and ronnel. 715

### SHELL SD-8447

Evaluation of Shell SD-8447 for control of two sweet corn insects. 963

### SHELL SD-9020

Laboratory evaluation of insecticides against the cigarette beetle. 894

### SHELL SD-9098

Laboratory evaluation of insecticides against the cigarette beetle. 894

### SHELLFISH

Control of the tadpole shrimp, *Triops longicaudatus* in California rice fields. 407

Pesticide monitoring programs. 639

Pesticide residues in food. 689

### SILICIC ACID

The chromatographic separation of pesticides on silicic acid. 985

### SIMAZINE SIMAZINE

Effects of pesticidal treatments on the chlorophyll content Effects of pesticidal treatments on the chlorophyll content of plant parts. 965

of plant parts. 965

### SIMULIIDAE

A possible explanation of the chemical control of simuliidae larvae. 86

Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121

Black flies (Diptera, Simuliidae) of Vologda region and their control. 597

Effects of DDT, as used in black fly larval control, on stream arthropods. 922

DDT and heptachlor as black-fly larvicides in clear and turbid water. 1051

### SIMULIUM

The selective control of simulium larvae by particulate insecticides and its significance in river management. 2

### SIMULIUM DAMNOSUM

On the biology of *Simulium damnosum* Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania. 106

The *Simulium* control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274

Selective control of *Simulium damnosum* and river management. 286

### SIMULIUM NEAVEI

A simple laboratory method for testing the susceptibility of larvae of *Simulium neavei* complex to insecticides. 941

### SIPHONA

A method for field detection of hornfly susceptibility to DDT residues. 207

### SIPHONAPTERA

Chemagro offers 'practical' program to selective-ly control pests of cotton. 400

Indications on plant care for olive crop cultivation. 430

Insect tormentors of livestock: III. Fleas and ticks. 601

Sticktight flea control on chickens with malathion dust self-treatment. 614

### SITONA

Research on bio-ecology of *Sitona crinitus* (Herbst) and method for chemical control. 136

The sitona weevil--a pest of lucerne (*Sitona humeralis*). 405

### SITOPHILUS

Carbamate and phosphate resistance in adult granary weevils. 255

### SITOPHILUS GRANARIUS

Change in the photic reaction due to DDT in the grain weevil, *Sitophilus granarius* (L.) (Coleoptera: Curculionidae). 47

SITOPHILUS ORYZAE

Saving stored rice from attacks of insect pests. 628

### SKIM MILK

Effect of DDT, dieldrin and heptachlor on the growth of selected bacteria. (Abstract). 968

### SLUDGE

Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650

### SLUGS

Insect control for garden vegetables. 311

Pests and diseases threatening our cherries. 520

### SMOKE

Wasp nests. 45

### SOAP

Physico-chemical studies of pesticides. III. Effect of soap on the biological activity of DDT suspensions. 572

### SODIUM BICARBONATE

Diagnosis and treatment of poisoning in dogs. 590

### SODIUM BIPHENYL

Report on analytical methods for pesticide formulations. 1001

### SODIUM CYANIDE

The method of conditioned reflexes in toxicology and its application for determining the toxicity of small quantities of pesticides. 931

### SODIUM FLUORIDE

Some physiological effects of sublethal doses of DDT on flour beetles. 219

- SODIUM FLUOSILICATE**  
Salt-marsh caterpillar control on cotton in Arizona. 567
- SODIUM HUMATE**  
Interaction of pesticides with natural organic material. 676
- SODIUM HYPOCHLORITE**  
Report on analytical methods for pesticide formulations. 1001
- SOIL ADSORPTION**  
Adsorption of some pesticides on soils, clay minerals and humic acid. 791
- SOIL ANALYSIS**  
Some observations on the effects of using organochlorine sprays in an orchard. 716  
Long-term movement of DDT applied to soil for termite control. 846
- SOIL BACTERIA**  
Pesticide levels and fluctuation in soil bacteria in an irrigated field and a pond of southwest Texas. 858  
Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria. 967
- SOIL CHEMISTRY**  
Interaction of pesticides with natural organic material. 676
- SOIL CONTAMINATION**  
Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424  
Residues of organochlorine insecticides and their metabolites in soils in the Atlantic Provinces of Canada. 642  
Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field. 643  
Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655  
On the distribution of pest control agents. 662  
The behavior of DDT and Zectran on a forest soil. 666  
Methods for extracting insecticides from soil. 669  
Methods for extracting insecticides from soil. 671  
Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-is, 1965. robert J. gould, ed. 672  
Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others. 677  
The optimum size for insecticide spray droplets. 1003
- SOIL FAUNA**  
Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field. 643  
Pesticides and the soil fauna; effects of Aldrin and DDT in an arable field. 740
- SOIL FUNGI**  
Problems in monitoring DDT and its metabolites in the environment. 847
- SOIL INSECTICIDES**  
Influence of soil type on the activity of insecticides in soil. 648
- SOIL LEACHING**  
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312
- SOIL MICROORGANISMS**  
Accumulation and concentration of chlorinated hydrocarbon pesticides by microorganisms in soil. 312  
Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms. 313  
Accumulation of chlorinated hydrocarbon pesticides by microorganisms in soil. (Abstract). 657
- SOIL MINERALOGY**  
Thermal decomposition of DDT by some soil constituents. 982
- SOIL PROPERTIES**  
Accumulation of DDT and dieldrin by microorganisms. 710
- SOIL SANITATION**  
Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398  
Control of earthworm. 573  
Termite control measures in building construction. 624  
Reduction of residues of heptachlor and chlordane in carrots with soil applications of activated carbon. 691
- SOIL SERIES**  
Toxicological studies on cutworms. I. Laboratory studies on the toxicity of insecticides to the dark-sided cutworm. 104  
DDT-C14 translocation in alfalfa. 537  
Influence of soil type on the activity of insecticides in soil. 648
- SOIL STERILIZATION**  
Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- SOIL TREATMENT**  
Control of Hippelates gnats with soil treatments using organochlorine insecticides. 291  
Hylemyia cilicrura Rond. on the Dianthus cultures of Pescia and Versilia. 396
- SOILS**  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506  
Effect of soil cultivation, soil surface and water on the persistence of insecticidal residues in soils. 661  
Persistence of pesticides in orchards and orchard soils. 673  
Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690  
Pesticides and the soil fauna; effects of Aldrin and DDT in an arable field. 740  
Persistence of DDT, aldrin, and lindane in some midwestern soils. 787  
Loss of chlorinated hydrocarbon insecticides from soil surface in the field. 821
- Residues in vegetable crops following soil applications of insecticides. 822  
Retention and vooatilization of lindane and DDT in presence of organic colloids isolated from soils and leonardite. 828  
Quantitative paper chromatography of chlorinated insecticides in soils. 837  
Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965. 840  
Pesticide effects in soils on nitrification and plant growth. 976
- SOLUBILITY**  
Predicting and measuring the solubility of p,p'-DDT in water. 638  
Insecticide solubility: Solubility of carbon-14 DDT in water. 988  
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027
- SOLUBILIZATION TECNIQUE**  
DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 145
- SOLVENTS**  
The selection of a solvent for use with low volume aerial spraying of cotton plants. 969  
Pesticides' unsung assistants. 1000  
Aromatic solvents for pesticides. 1018
- SORGHUM**  
Effectiveness of insecticides against the corn earworm in sorghum heads. 421
- SOUTH FLORIDA**  
Brief history of aphid control on potatoes in south Florida, 1946-59. 544
- SOYBEANS**  
Observations on soybean insects in maryland. 498  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 505  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506  
Monitoring for chlorinated hydrocarbon insecticide residues in soybeans- 1966. 690  
Translocation of DDT and heptachlor in soybeans. 739
- SPARROWS**  
New contributions to the subject 'birds and agriculture'. 574
- SPECTROMETRY**  
The feasibility of mass spectrometric methods in residue analysis. 1005
- SPECTROPHOTOMETRY**  
Cleanup processes for pesticide residue analysis. 798  
Report on chlorinated insecticides and miticides. 807  
Residue analysis in the dairy industry. in: Zweg, Analytical methods for pesticides, plant growth regulators, and food additives. vol i. principles, methods, and general application 816  
Residue analysis in the dairy industry in Zwig, Analytical methods for pesticides. plant growth



# SUBJECT INDEX

## SPECTROSCOPY

- regulators, and food additives, vol. 1. principles, methods, and general application. 817
- Chromatographic separation of malathion prior to infrared spectrophotometric estimation. 995
- Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021

## SPECTROSCOPY

- Determination of DOT and related substances in human fat. 795
- DDT - type compounds: Separation and identification by a system combining thin layer chromatography, gas chromatography, and infrared spectroscopy. 983

## SPIDERS

- Spiders on apple in Wisconsin and their abundance in a natural and two artificial environments. 14
- The old house borer in Eastern States. 38

## SPINACH

- Removal of DDT, parathion, and carbaryl from spinach by commercial and home preparative methods. 780

## SPODOPTERA

- Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn. 21
- The relative susceptibility of the larvae of *Spodoptera mauritia acronyctoides* (Guenée) (Lepidoptera: Noctuidae) to several contact insecticides. 37
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 345
- Adjuvants in sprays for insect control on sweet corn. 414
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 549

## SPODOPTERA FRUGIPERDA

- Azodrin for corn earworm and fall armyworm control and its persistence in sweet corn. 21
- Control of a corn stem weevil (*Hyperodes humilis*), and fall armyworm with DDT and parathion in South Florida. 102

## SPOTTED ROOT MAGGOT

- The mechanism of DDT resistance in the spotted root maggot *Euxesta notata*. 116

## SPOTTED WILT (TOMATOES)

- Tomato spotted wilt (tomato spotted wilt virus). 327

## SPOTTED-ROOT MAGGOT

- Dieldrin-resistant and DDT-RESISTANT strains of the spotted root maggot apparently restricted to heterozygotes for resistance. 115
- The mechanism of DDT resistance in the spotted root maggot *Euxesta notata*. 116

## SPRAYING

- A summary of forest and shade tree insect-disease conditions for Maine 1967. 4
- Biology and control of native and introduced forest insects in the Nearctic Zone. 6
- New Jersey court upholds gypsy moth spraying. 22
- How to control bed bugs. 34
- DDT resistance in *Oncopera*. 101

- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121
- Insects and related pests of house plants; how to control them. 128
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132
- Southern tree chapter briefed on borer control. 158
- Low volume spraying by air to control mosquito larvae in California. 170
- Studies on the Sitka spruce weevil, *Pissodes sitchensis*, in British Columbia. 206
- Control of *Glossina morsitans submorsitans* Newst. in northern Nigeria by riverine spraying with motorized sprayers. 222
- Prospects for the eradication of malaria in Algeria. 282
- Board lists precautions for forest spray programs. 306
- Spray controversy hinders efficient control operations. 309
- Insect control for garden vegetables. 311
- Low temperature sprays for Dutch elm disease control. 323
- Dormant sprays for the control of Dutch elm disease. 325
- Double your cotton yield by spraying. 346
- Factors affecting the appearance of holly oaks in Southern California. 367
- Chemical control of mango hoppers (*Idiocerus* spp.). 376
- Hylemyia cilicrura* Rond. on the *Dianthus* cultures of Pescia and Versilia. 396
- Cabbage looper control in Florida - a cooperative program. 404
- Effects of an aerial DDT spray on aquatic insects in Connecticut. 425
- Insecticidal field treatments for the control of the European corn borer. *Ostrinia nubilalis* (Hubner) in Southwestern Quebec, 1967. 434
- Chemical control of codling moth with DDT and sevin, the resistance problem of codling moth to DDT and additional observations on the effect of fruit thinning of sevin. 438
- The influence of spray programs on the fauna of apple orchards in Nova Scotia. XI. effects of low dosages of DDT on predator populations. 453
- Capsid bugs on fruit. 469
- Effects of various water volumes on the effectiveness of methyl parathion-DDT, in controlling the cotton boll weevil, *Anthonomus grandis*. 481
- Don't take lightly these brinjal borers. 518
- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581
- Environmental pollution: Scientists go to court. 640
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 644

- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656
- Comparisons of residues in milk resulting from two types of spray applications of DDT, SHELL COMPOUND 4072, and ronnel. 715
- Some observations on the effects of using organochlorine sprays in an orchard. 716
- Persistence of DDT in crayfish in a natural environment. 730
- DDT residues on sweet corn ear tips and silks after treatment with dust, spray, or granular formulations. 759
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- Cuticula of leaves and the residue problem. 788
- DDT and dieldrin residues on pasture following dusting and spraying. 808
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926
- Toxicity of DDT and related compounds to certain lepidopteran cotton insects. 961
- The selection of a solvent for use with low volume aerial spraying of cotton plants. 969
- The optimum size for insecticide spray droplets. 1003
- Formulation analysis: The effect of different storage treatments on the susceptibility, agglomeration and deterioration of surfactants of DDT water-dispersible powders. 1043
- Theoretical and practical aspects of room spraying. 1046
- SPRAYING EQUIPMENT**
- Lawn and household pesticides are discussed by CSMA speakers. 633
- STAPHYLOCOCCUS**
- An in vitro and in vivo study of the effect of DDT on the phagocytic activity of rat white blood cells. 925
- STAPHYLOCOCCUS AUREUS**
- Effect of DDT, dieldrin, heptachlor on the growth of selected bacteria. 967
- STARLINGS**
- Excretion of DDT by migratory birds. 762
- STARVATION**
- Effects of forest spraying with DDT on aquatic insects, food of salmon and trout, in New Brunswick. 581
- Storage and excretion of DDT in starved rats. 898
- Growth and resistance to stress in brook trout fed sublethal levels of DDT. 929
- STATISTICAL ANALYSIS**
- Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva. 134
- Insecticides in human fat in New Zealand. 705
- STEAM**
- Effect of direct steam heating and vacuum treatment on levels of pesticide residues in milk. 783

- STENOTAPHRUM SECUNDATUM**  
Lawn and household pesticides are discussed by CSMA speakers. 633
- STERILITY**  
New strategy against the codling moth. 177  
Some physiological effects of sublethal doses of DDT on flour beetles. 219
- STERILIZATION**  
Fifty years of research on the pink bollworm in the United States. 479  
In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711
- STEROIDS**  
Effect of some pesticides on the adrenal glands in the rat. 580  
Pesticide-induced enzyme breakdown of steroids in birds. 583
- STEROLS**  
Comparison of sterols in resistant and susceptible houseflies, *Musca domestica*. 85
- STOMOXYS**  
Stable fly tolerance to residues of DDT, dieldrin, malathion and diazinon. 129
- STOMOXYS CALCITRANS**  
Use of WHO tsetse fly kit for determining resistance in the stable fly. 169  
Houseflies, blowflies and cluster flies. 610
- STORAGE**  
The determination of the insecticidal activity of an 8 year old sample of DDT by biological method. 174  
Pesticide storage in human fat tissue. 588  
Effect of storage on cottonseed and cottonseed products. 621  
DDT storage in the U. S. population. (Abstract). 829  
Problems in monitoring DDT and its metabolites in the environment. 847  
Pesticides in people. Storage of DDT in the people of Israel. 866  
Formulation analysis: The effect of different storage treatments on the susceptibility, agglomeration and deterioration of surfactants of DDT water-dispersible powders. 1043
- STORED PRODUCTS**  
Saving stored rice from attacks of insect pests. 628  
Some insecticidal trials for the protection of til seeds in storage. 629
- STRAWBERRIES**  
The reduction of insect-caused apical seediness in strawberries. 511
- STREAMS**  
Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121  
Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132  
The Simulium control scheme at Abuja, Northern Nigeria, and its effect on the prevalence of onchocerciasis in the area. 274  
Repopulation by aquatic insects in streams sprayed with DDT. 606
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 644  
Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656  
Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708  
Persistence of DDT in crayfish in a natural environment. 730  
Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926
- STREPTOMYCIN**  
In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*). 711  
Effects of pesticidal treatments on the chlorophyll content of plant parts. 965
- STRESS**  
Growth and resistance to stress in brook trout fed sublethal levels of DDT. 929
- STROBANE**  
Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography. 1041
- SUCCINIC DEHYDROGENASE**  
Effect of DDT and toxaphene alone and in combination on succinic dehydrogenase activity in homogenates of the boll weevil. 933
- SUGAR BEETS**  
Control of sugar-beet moth, *Phthorimaea ocellatella*, Boyd. 451  
Experiments on control of the sugar-beet wireworm in southern California bean fields. 565
- SUGARCANE**  
Control of sugar cane borer with insecticides. 452  
The influence of infestation by early shoot borer *Chilo tratrae infuscatellus* Sn. on shoot production and yield of sugarcane. 496
- SUGARS**  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 505  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506
- SULFOTEPP**  
Residuals of pesticides in cultivated mushrooms. 870  
Pesticide residues in cultivated mushrooms. 871
- SULFUR**  
Chemical control of mango hoppers (*Idiocerus* spp.). 376
- SULFUR COMPOUNDS**  
Residue analysis in the dairy industry. in: Zwigg, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 816  
Residue analysis in the dairy industry. in: Zwigg, Analytical methods for pesticides, plant growth regulators, and food additives. vol. i. principles, methods, and general application. 817
- SULFURIC ACID**  
Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 768  
Studies on the effect of sulfuric-fuming nitric acid treatment on the analytical characteristics of toxaphene. 1006
- SULPHENONE**  
Metals, other elements, and residues in foods. 831
- SUPELLA SUPELLECTILIUM**  
The brown-banded cockroach in Hamburg. 236
- SUPERPHOSPHATES**  
Incidence of *Bacillus popilliae* (Dutky) in *Costelytra zealandica* (White) larva. 134
- SUPPLY AND DEMAND**  
Heavy supply and low demand. 1056
- SURFACE CHEMISTRY**  
The effect of the association of organic material with clays on parathion and DDT adsorption. 1028
- SURFACE-ACTIVE AGENTS**  
Toxicity of surfactants and surfactant-insecticide combinations to the bollworm, tobacco budworm, and pink bollworm. 238
- SURGERY**  
Estrogenic action of DDT and its analogs. (Abstract). 928
- SURVEYS**  
On the distribution of pest control agents. 662  
No serious problem with pesticide residues. 696  
Pesticide residues are not a problem. 717  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. (abstract). 796
- SUSCEPTIBILITY**  
Susceptibility of an alfalfa leafcutting bee to residues of insecticides on foliage. 231
- SWEET CORN**  
Evaluation of Shell SD-8447 for control of two sweet corn insects. 963
- SWEET POTATOES**  
Wireworms in sweet potatoes; Resistance to cyclodiene insecticides and control with a mid-summer application of insecticide over foliage. 365  
Incidence of field spread of internal cork of sweet potato in insecticide-treated plots. 444
- SWEETCORN**  
*Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control. 416  
Minimum number of insecticide applications for the control of the European corn borer on sweet corn in Quebec. 433  
Effect of DDT on control of corn earworms in sweet corn entries selected for varying resistance. 545  
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 548  
DDT residues on sweet corn ear tips and silks after treatment with dust, spray, or granular formulations. 759



# SUBJECT INDEX

## SWEETPOTATOES

### SWEETPOTATOES

Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes.

512

Biology and control of morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes.

513

Residues in vegetable crops following soil applications of insecticides.

822

### SYMPTOMATOLOGY

Contribution to the study of the mode of action of certain synthetic insecticides, most particularly of Lindane, and of the phenomena of resistance to these compounds in *Musca domestica* L.

189

Diseases and parasites of the rose.

322

Effects of DDT on brain electrical activity in awake, unrestrained rats.

596

The effects of an acute DDT exposure on the spontaneous electrical activity of goldfish cerebellum.

887

### SYNERGISM

Biological interaction between plasticizers and insecticides.

142

### SYNERGISTS

Specificity in insecticides.

103

The toxicological effect on animals of mixtures of chlorophos and DDT.

927

### SYNTHESIS

Effect of DDT and dieldrin on RNA and protein synthesis in subcellular fractions of *HeLa S* cells.

713

### SYSTEMIC INSECTICIDES

Stem applications of azodrin for control of the cotton fleahopper.

501

### T, 2,4,5-

Herbicide-insecticide formulations for control of the American dog tick.

609

Interaction of pesticides with natural organic material.

676

### TABLES (DATA)

Studies on the efficiency of collecting and counting *Anopheles gambiae* in verandah-trap huts.

3

Insect control for garden vegetables.

311

Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides.

655

Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food.

702

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas.

722

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida.

784

Pesticides in people. Storage of DDT in the people of Israel.

866

The dosage of the insecticides: DDT, HCH and methoxychlor for chromatography on a thin layer and for polarography.

1011

### TANNINS

Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA.

205

### TANYTARSUS LEWISI

Insecticidal operations against chironomid midges along the Blue Nile.

56

### TARAXACUM

Further experience obtained in studies on dispersal flights of *Meligethes aeneus* F., marked with P32 (Coleoptera).

523

### TASTE TESTING

Sensorial analysis on tubers of native potatoes treated with insecticides.

321

### TDE

Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies.

46

Toxicology and physiology of DDT resistance in the German cockroach.

117

Absorption of DDT and metabolism of DDT and related compounds by DDT-RESISTANT codling moths.

195

Conversion of DDT to DDD in soil and the effect of these compounds on soil microorganisms.

313

Low-volume aerial spraying of several insecticides for cotton-insect control.

340

Effect of some pesticides on the adrenal glands in the rat.

580

Residues in milk of cows fed rations containing low concentrations of five chlorinated hydrocarbon pesticides.

584

Evidence for conversion of DDT to TDE in rat liver: I. Liver/body fat ratios of TDE.

591

Anaerobic degradation of selected chlorinated hydrocarbon pesticides.

650

Corroborative study of certain chlorinated organic pesticides in dairy products.

685

Pesticides in hatchery trout--differences between species and residues levels occurring in commercial fish food.

702

In vitro degradation of DDT by intestinal contents of Atlantic salmon (*Salmo salar*).

711

Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas.

722

Pesticide residues in total diet samples.

736

Separation and measurement of perthane, DDD(TDE), and DDT in leafy vegetables by electron capture gas chromatography.

774

An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida.

784

Identification of pesticide residues in extracts of fruit, vegetables and animal fats III. Metabolites of chlorinated hydrocarbon pesticides in animal depot-fat.

797

Metabolism of dDT and some other chlorinated organic compounds by *Aerobacter aerogenes*.

802

Collaborative study of certain chlorinated organic pesticides in dairy products.

809

Section C: Pesticide residue content.

810

Metals, other elements, and residues in foods.

831

Distribution of p,p'-DDT residues in adipose and muscle tissues of beef cattle.

836

DDT residues in Adelie penquins and a crabeater seal from Antarctica.

843

DDT residues in Adelie penguins and a crabeater seal from Antarctica.

844

Problems in monitoring DDT and its metabolites in the environment.

847

Pesticide residues - USDA'S position.

860

Pesticides in people. Storage of DDT in the people of Israel.

866

Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations.

926

The quantitative analyses of microgram quantities of mixtures of DDD and p,p'-DDT.

930

DDT and related compounds in dog food and CSMA media used in insect rearing.

945

Conversion of DDT to DDD by pathogenic and saprophytic bacteria associated with plants.

972

Separation and measurement of perthane, DDD (TDE) and DDT in leafy vegetables by electron-capture gas chromatography.

1009

Metabolic products of p,p'-DDT in the rat.

1020

Pesticides.

1025

Sensitivity tests for 22 different chlorinated organic pesticides by paper chromatography.

1041

FDA publishes proposal for residue tolerance in milk.

1063

### TEA

Internal perfusion of crayfish giant axons: Action of tannic acid, DDT, and TEA.

205

The control of yellow tea mite, *Hemitarsonemus latus* (Banks), with DDT on cotton in Uganda.

437

### TELODRIN

Resistance to Telodrin in the German cockroach, *Blattella germanica*.

70

### TEMPERATURE

Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug *Lygus hesperus*.

43

Temperature and the action of DDT on the cockroach nervous system.

81

Temperature effects on the toxicity of five insecticides against five species of stored-product insects.

125

Controlling fluctuations of duration of developmental period in *Drosophila*.

172

Effect of temperature and humidity on the susceptibility of bedbugs to insecticides.

215

Susceptibility to insecticides of certain anophelines according to the time of catch and testing.

296

Low temperature sprays for Dutch elm disease control.

323

Neodiprion taedae linearis: A sawfly pest of loblolly and shortleaf pines.

383

Effect of climatic factors on the susceptibility of insects to insecticides.

514

- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 586
- Effect of high temperature cooking on chlorinated insecticide residues in chicken tissues. 594
- Effect of storage on cottonseed and cottonseed products. 621
- DDT. Sublethal effects on brook trout nervous system. 693
- Effect of DDT on temperature selection by young atlantic salmon, *Salmon solar*. (Abstract). 825
- Retention and vooatilization of lindane and DDT in presence of organic colloids isolated from soils and leonardite. 828
- Problems in monitoring DDT and its metabolites in the environment. 847
- Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*. 883
- DDT: Sublethal effects on brook trout nervous system. 884
- Growth and resistance to stress in brook trout fed sublethal levels of DDT. 929
- TERMITE-PROOFING**
- Termite control measures in building construction. 624
- TERMITES**
- Long-term movement of DDT applied to soil for termite control. 846
- TERPENE POLYCHLORINATES**
- Low-volume aerial spraying of several insecticides for cotton-insect control. 340
- Field experiments against several late-season cotton insects in 1959. 380
- Control of several cotton insects in field experiments in 1960. 381
- Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387
- Control of mint insects. 402
- Control of several early-season cotton pests with insecticides. 486
- The cotton leaf perforator and its control in Arizona. 531
- TERPENES**
- Cotton leaf perforator and its control in Arizona. 532
- TESTING**
- Enhanced metabolism of methyprylon, meproabamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats. 900
- TETRACHLORO-2,2-BIS(PARA-CHLOROPHENYL)ETHANE, 1,1,1,2-**
- The apparent binding of ddt to tissue components. 915
- TETRAETHYL PYROPHOSPHATE**
- Some chemical characteristics of a DDT- induced neuroactive substance from cockroaches and crayfish. 107
- TETRAMETHYL PYROPHOSPHATE**
- Some chemical characteristics of a DDT- induced neuroactive substance from cockroaches and crayfish. 107
- TETRANYCHIDAE**
- Population dynamics of spider mites influenced by DDT. 5
- Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 504
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 505
- Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 529
- TETRANYCHUS**
- Effect of mite control on corn yield. 448
- Observations on soybean insects in maryland. 498
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 506
- TETRANYCHUS URTICAE**
- The effects of DDT and sublethal doses of dicofol on reproduction of the two-spotted spider mite. 188
- Pests and diseases threatening our cherries. 520
- TETRASTICHUS**
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- TEXAS**
- DDT-RESISTANCE in *Heliothis zea*. 55
- Investigations of pink bollworm resistance to DDT in Mexico and the United States. 152
- Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960. 387
- Evaluation of insecticides for control of the tobacco thrips on peanuts. 409
- THALLIUM**
- Diagnosis and treatment of poisoning in dogs. 590
- THANITE**
- Water-base insecticides. 1036
- THERMAL ANALYSIS**
- A thermal preference method of bioassay of the toxicity of insecticidal films to house flies. 1047
- THIOACETAMIDE**
- Biochemical changes in rat liver in response to treatment with drugs and other agents--II. effects of haloethane, DDT, other chlorinated hydrocarbons, thioacetamide, dimethylnitrosamine and ethionine. 938
- THIOCARBAMATES**
- Diseases and parasites of the rose. 322
- THIRAM**
- Metals, other elements, and residues in foods. 831
- THRIPS**
- Observations on soybean insects in maryland. 498
- THRIPS TABACI**
- Tomato spotted wilt (tomato spotted wilt virus). 327
- Evaluation of new insecticides for control of onion thrips. 918
- THYROPROTEIN**
- Effect of thyroprotein and a low-energy ration on removal of DDT from lactating dairy cows. 805
- Secretion of DDT by lactating cows fed thyroprotein. 853
- THYSANOPTERA**
- Early season insects no problem for B. A. Jordan. 39
- TILLAGE**
- Indications on plant care for olive crop cultivation. 430
- TIME**
- Research on bio-ecology of *Sitona cernitus* (Herbst) and method for chemical control. 136
- Timing insecticide applications for European corn borer control in Southwestern Quebec, 1967. 435
- Low volume aerial applications of DDT to cotton in central Tanzania 1966. 487
- TINEOLA BISSELLIELLA**
- Co-resistance and resistance inheritance in a dieldrin resistant laboratory stock of the clothes moth (*Tineola bisselliella* (Hum.), Lep.). 139
- TIPULIDAE**
- The leatherjacket risk grows. 148
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- TISSUES**
- An autoradiographic study of invertebrate uptake of DDT-CL36. 232
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- Improved extraction of chlorinated hydrocarbon pesticides from animal tissues. 786
- Residues in eggs and tissues of chickens on rations containing low levels of DDT. 789
- Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. 848
- Persistence of chlorinated hydrocarbon insecticide residues in chicken tissues and eggs. (abstract). 849
- The apparent binding of ddt to tissue components. 915
- Concentration of DDT in brain and other tissues in relation to symptomatology. 916
- Distribution of pesticide residues in human body tissues from Montgomery County, Ohio. in: Organic pesticides in the environment; symposium...American Chemical Society Atlantic City, N.J., Sept. 13-15, 1965. robert J. Gould, ed. 949
- TOBACCO**
- Reducing DDT persistence. 388
- Pesticide residues - USDA'S position. 860
- TOLERANCES**
- What's behind the DDT hassle . 684
- Some remarks on plant protection preparation-tolerances. 733
- Tolerances of three species of anuran amphibians to five chlorinated hydrocarbon insecticides. 747
- Pesticides: Present levels in food and possible sources of contamination. 785



# SUBJECT INDEX

## TOMATOES

Commercial aspects of pesticide residues in foodstuff.	793
Pesticides in soil. Monitoring for chlorinated hydrocarbon pesticides in soil and root crops in the Eastern States in 1965.	840
Pesticide residues.	845
DDT; establishment of pesticide and food additive tolerances.	862
Proposed reduction of tolerances in or on raw agricultural commodities.	863
<b>TOMATOES</b>	
Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions.	318
Tomato yellow top.	328
Effectiveness of insecticides against the European corn borer and green peach aphid on peppers.	428
Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions.	470
Removal of DDT, malathion, and carbaryl from tomatoes by commercial and home preparative methods.	745
Applications of polarography for the detection and determination of pesticides and their residues.	998
<b>TORTRICIDAE</b>	
Chemical control of the tea tortrix ( <i>Homona coffearia</i> Nietner).	384
Brinjal leaf roller.	517
<b>TORYMUS</b>	
Biology and control of the apple seed chalcid in North Carolina.	530
<b>TORYMUS VARIANS</b>	
Apple chalcid, <i>Torymus varians</i> (Wlk.), (Hymenoptera: Torymidae), in Quebec.	503
<b>TOXAPHENE</b>	
Use of <i>Daphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	9
Relative toxicity of insecticidal films to adults of <i>Trogoderma granarium</i> Everts., <i>Oryzaephilus surinamensis</i> L. and <i>Laemophloeus minuthus</i> Oliv.	18
Insecticide resistance in <i>Bracon mellitor</i> , a parasite of the boll weevil.	28
Controlling the Japanese beetle.	36
Early season insects no problem for B. A. Jordan.	39
Influence of certain biological and environmental factors on insecticide tolerance of the lygus bug <i>Lygus hesperus</i> .	43
Antifeeding effect of DDT on bollworm and tobacco budworm larvae.	60
Residual effect of a number of insecticides on adults of the carabid <i>Pseudophonus rufipes</i> (Dej.).	78
Laboratory tests of insecticides against eggs and larvae of the cabbage looper.	135
Laboratory evaluation of insecticides against the adult horn fly.	141

Fate of DDT and toxaphene applied topically to susceptible and resistant boll weevils.	143
Pick-up of insecticide through different pairs of house fly tarsi.	185
Response of the striped lynx spider, <i>Oxyopes salticus</i> , to two commonly used pesticides.	191
A method for field detection of hornfly susceptibility to DDT residues.	207
Field tests for control of overwintered boll weevils.	209
Control of <i>Hippelates</i> gnats with soil treatments using organochlorine insecticides.	291
Notes on the syntomid moth <i>Lymire edwardsi</i> (Grote) and its control as a pest of <i>Ficus</i> in south Florida.	300
Entomologists exchange '59 research results.	305
Low-volume aerial spraying of several insecticides for cotton-insect control.	340
Setting up a method for control of clover weevils.	352
Laboratory tests with toxaphene, DDT, and Sevin against <i>Lygus hesperus</i> on cotton.	359
Effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils.	363
The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils.	364
Growth and development of cotton as affected by toxaphene, DDT, methyl parathion, and calcium arsenate.	366
Field experiments against several late-season cotton insects in 1959.	380
Control of several cotton insects in field experiments in 1960.	381
Field experiments against several late-season cotton insects in 1959.	386
Field experiments for control of thrips, cotton fleahoppers, and overwintered boll weevils in 1960.	387
Field experiments on control of overwintered boll weevils.	397
Control of mint insects.	402
Evaluation of insecticides for control of the tobacco thrips on peanuts.	409
Adjuvants in sprays for insect control on sweet corn.	414
Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia.	429
Laboratory tests of insecticides against eggs and larvae of the cabbage looper.	447
Insecticidal susceptibility of <i>Nysius raphanus</i> , a pest of cotton.	449
Evaluation in the greenhouse of a new insecticide for bollworm control.	454
A preventive boll weevil control program applied to a tensquare-mile area within a treated county.	471

A preventive boll weevil control program applied to a tensquare-mile area within an untreated county.	472
Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958.	485
Control of several early-season cotton pests with insecticides.	486
Field experiments with several insecticidal sprays against the boll weevil and bollworm.	489
Cotton fiber quality as related to some cotton insect control programs and time of fruit setting.	492
Stem applications of azodrin for control of the cotton fleahopper.	501
Control of the tarnished plant bug, <i>Lygus lineolaris</i> , on birdsfoot trefoil grown for seed.	502
Biology and control of the morning-glory leaf miner, <i>Bedellia somnulentella</i> , on sweet potatoes.	512
Biology and control of morning-glory leaf miner, <i>Bedellia somnulentella</i> , on sweet potatoes.	513
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California.	521
Field tests with various insecticides for the control of <i>Lygus</i> bugs and the corn earworm on lima beans.	522
The cotton leaf perforator and its control in Arizona.	531
Insecticides and insecticide-oil combinations for corn earworm, boll weevil, and cowpea curculio control.	542
Brief history of aphid control on potatoes in south Florida, 1946-59.	544
Treated bags for control of the corn earworm and fall armyworm.	552
Effectiveness of DDT for cabbage caterpillar control in Indiana, 1945 to 1960.	555
Salt-marsh caterpillar control on cotton in Arizona.	567
Control of face flies, <i>Musca autumnalis</i> on beef cattle in Indiana.	602
Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat <i>Hippelates colusor</i> (Townsend) in the laboratory.	612
Resistance to BHC in the cattle tick <i>Boophilus microplus</i> (can.) in India.	618
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	659
Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography.	660
Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.	668
Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction.	670

- Quantitative measurement of combinations of  
aramite, DDT, toxaphene, and endrin in crop  
residues. 699
- Microcoulometric gas chromatography of pesti-  
cides. 718
- Tolerances of three species of anuran amphib-  
ians to five chlorinated hydrocarbon insecticides.  
747
- Insecticide residues in milk and dairy products.  
763
- Studies on the effect of sulfuric-fuming nitric  
acid treatment on the analytical characteristics  
of toxaphene. 768
- Field weathering of toxaphene and chlordane.  
776
- Section C: Pesticide residue content. 810
- Pesticide residues in commerical animal feeds.  
811
- Residues in vegetable crops following soil appli-  
cations of insecticides. 822
- Metals, other elements, and residues in foods.  
831
- Residues in vegetable crops following soil appli-  
cations of insecticides. 851
- Ecological and nutritional studies on  
*Coleomegilla maculata* DeGeer (Coleoptera:  
Coccinellidae). III. The effect of DDT, tox-  
aphene, and endrin on the reproductive and sur-  
vival potentials. 886
- Effect of DDT and toxaphene alone and in com-  
bination on succinic dehydrogenase activity in  
homogenates of the boll weevil. 933
- Pour-on treatments of DDT or toxaphene for  
horn fly control. 944
- Some effects of toxaphene-DDT and calcium ar-  
senate on growth and development of cotton.  
964
- Pesticides' unsung assistants. 1000
- Studies on the effect of sulfuric-fuming nitric  
acid treatment on the analytical characteristics  
of toxaphene. 1006
- Sensitivity tests for 22 different chlorinated or-  
ganic pesticides by paper chromatography. 1041
- TOXICITY
- Effect of DDT poisoning on the longevity and  
fecundity of the pink bollworm. 29
- Destruction of wasps. 40
- Specificity in insecticides. 103
- Contribution to the study of the mode of action  
of certain synthetic insecticides, most particu-  
larly of Lindane, and of the phenomena of re-  
sistance to these compounds in *Musca domestica*  
L. 189
- Comparative toxicities of insecticides to house fly  
larvae and *Macrocheles muscaedomestica*, a  
mite predator of the house fly. 888
- The toxicological effect on animals of mixtures  
of chlorophos and DDT. 927
- Growth and resistance to stress in brook trout  
fed sublethal levels of DDT. 929
- TOXICOLOGY
- Syntheses of the aliphatic deuterium analogs of  
DDT and TDE and their toxicity and degradation  
when applied to adult house flies. 46
- The toxicity of insecticides to larvae of the  
codling moth, *Cydia pomonella* (L.). I. Intrinsic  
toxicity and toxicity and persistence. (Abstract). 94
- Toxicological studies on cutworms. I. Laboratory  
studies on the toxicity of insecticides to the dark-  
sided cutworm. 104
- Temperature effects on the toxicity of five insecti-  
cides against five species of stored-product in-  
sects. 125
- Toxicity, pick-up and metabolism of p,p'-DDT  
and related compounds in *Culex pipiens fatigans*  
and *Aedes aegypti* L. 130
- Chlorinated hydrocarbon insecticide inhibition  
of cockroach and honey bee ATPases. 138
- The influence of site application on the toxicity  
of insecticides in red cotton bug, *Dysdercus cin-  
gulus*, F. 190
- The toxicological action of three or-  
ganophosphorus insecticides with three species  
of mosquito larvae. 200
- Variability in insecticide tolerance of eighteen  
honey-bee colonies. 221
- Toxicological action of DDT on three species of  
mosquito larvae. 234
- Compatibility studies on *Bacillus thuringiensis*  
Berliner with chlorinated hydrocarbons. 329
- Note on damage to grasses in the Peace River re-  
gion by the spittlebug, *Philaronia bilineata* Say,  
(Cercopidae: Hemiptera). 344
- Toxicity of some pesticides to predacious  
arthropods in Ontario peach orchards. 422
- Compatibility studies on *Bacillus thuringiensis*  
Berliner with chlorinated hydrocarbons. 495
- A comparison of the toxicity of insecticides for  
the control of corn earworm on sweet corn. 548
- The effect of DDT on reproduction in mice. 598
- Degradation of DDT in Atlantic salmon (*Salmo*  
*salar*). 755
- DDT residues on pasture and in the butterfat of  
cows grazing pasture treated with DDT prills and  
DDTsuperphosphate. (abstract). 760
- The toxicity and sublethal effects of p,p'-DDT  
and dieldrin to *Aglais urticae* (L.) (Lepidoptera:  
Nymphalidae) and *Chorthippus brunneus*  
(Thunberg) (Saltatoria:Acrididae). 818
- Effect of DDT or parathion on condition  
avoidance response of offspring from DDT or  
parathion treated mothers. (abstract). 881
- Effect of sublethal DDT on the lateral line of  
brook trout, *Salvelinus fontinalis*. 883
- DDT: Sublethal effects on brook trout nervous  
system. 884
- Effects of insecticides on algae. 895
- Studies of DNA, RNA, and protein synthesis in  
HeLa S cells exposed to DDT and dieldrin. 896
- Occupational hazards. 899
- The early effects of low DDT doses on the ner-  
vous system in animal experiments. 901
- Pharmacodynamic study of DDT in cockerels. 905
- The effect of DDT in the diet on the resting and  
loading electrocorticogram record. 906
- Insecticide-resistant fishes: A potential hazard to  
consumers. 907
- Degradation and disappearance of ortho, para  
isomer of technical DDT in living and dead avian  
tissues. 910
- The acute toxicity of pesticides to rats. 911
- The apparent binding of dDT to tissue com-  
ponents. 915
- Response of robins to DDT and methoxychlor. 919
- Action of DDT on the peripheral nervous system  
of the grass frog *Rana pipiens*. 920
- Chemical vs environmental changes. Their ef-  
fects on wildlife. 921
- DDT toxicity in rye (*Secale* spp.). 924
- Estrogenic action of DDT and its analogs. (Ab-  
stract). 928
- Mode of action of insecticide synergists. 932
- Mode of action of DDT and allethrin on nerve:  
Cellular and molecular mechanisms. 934
- Residues in the body fat of steers fed kelthane in  
their ration. (Abstract). 937
- Biochemical changes in rat liver in response to  
treatment with drugs and other agents--II. effects  
of halothane, DDT, other chlorinated hydrocar-  
bons, thioacetamide, dimethylnitrosamine and  
ethionine. 938
- Laboratory evaluation of DDT and  
phosphamidon on the western hemlock looper,  
*Lambdina fiscellaria lugubrosa* (Hulst). 940
- Combined action of DDT with chlorophos and of  
thiophos with chlorophos. 954
- Detoxification of DDT by the perfused bovine  
liver. 959
- Effect of dichloro diphenyl trichloro-ethane  
(DDT) on leghemoglobin content of root  
nodules of *Phaseolus aureus* (green gram). 971
- On the toxicology of Pyrethrum to warm blooded  
animals. 1030
- A thermal preference method of bioassay of the  
toxicity of insecticidal films to house flies. 1047
- A.I.C.H.E. holds pesticides. 1050
- TOXINS
- Sensitivity to the soluble heat-stable toxin of  
*Bacillus thuringiensis* of strains of *Musca*  
*domestica* tolerant to chemical insecticides. 89
- The problem of the utilization of en-  
tomopathogenic microorganisms in combination  
with insecticides. 223
- Relation between DDT in diets of laying birds  
and viability of their eggs. 582
- Biochemical changes in rat liver in response to  
treatment with drugs and other agents--II. effects  
of halothane, DDT, other chlorinated hydrocar-  
bons, thioacetamide, dimethylnitrosamine and  
ethionine. 938



# SUBJECT INDEX

## TRANQUILIZERS

### TRANQUILIZERS

Enhanced metabolism of methyprylon, meprobamate, and chlordiazepoxide hydrochloride after chronic feeding of a low dietary level of DDT to male and female rats.

900

### TRANSLOCATION

Long-term movement of DDT applied to soil for termite control.

846

### TREE DISEASES

Some experiences with the use of *Bacillus thuringiensis* Berl. against forest pests.

64

### TREES

Southern tree chapter briefed on borer control.

158

The gypsy moth threat in America.

320

Designing orchard experiments for european red mite control.

385

Maryland arborists discuss insect control.

458

Bark beetles.

539

### TRIATOMA

Glutathione turnover in *Triatoma infestans* treated with 2,2-bis-(p-chlorophenyl)-1,1,1-trichloroethane.

124

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*.

229

### TRIATOMA INFESTANS

Partial characterization of the in vivo metabolites of DDTC14 in *Triatoma infestans*.

31

The induction of NAD kinase by DDT in *Triatoma infestans*.

32

Some properties of the microsomal system metabolizing DDT in *Triatoma infestans*.

33

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*.

77

Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*.

146

### TRIBOLIUM

Physico-chemical studies of pesticides. III. Effect of soap on the biological activity of DDT suspensions.

572

### TRIBOLIUM CASTANEUM

Temperature effects on the toxicity of five insecticides against five species of stored-product insects.

125

Some insecticidal trials for the protection of til seeds in storage.

629

### TRIBOLIUM CONFUSUM

Temperature effects on the toxicity of five insecticides against five species of stored-product insects.

125

Some physiological effects of sublethal doses of DDT on flour beetles.

219

### TRICARBOXYLIC ACID CYCLE

Effect of DDT on incorporation of C14-labeled glucose into protein and soluble intermediates of nymphal *Triatoma infestans*.

77

### TRICHLORFON

Variability in insecticide tolerance of eighteen honey-bee colonies.

221

New insecticides for lygus bug control on vegetable seed crops.

336

Seed treatment with phorate, disulfoton, and other insecticides to control pea insects in Iraq.

341

Control of the castor shoot and capsule borer, *Dichocrocis punctiferalis* Guen.

347

New insecticides for lygus bug control on vegetable seed crops.

373

Chemical control of the tea tortrix (*Homona coffearia* Nietner).

384

Biology and control of leopard moth on pear trees in the United Arab Republic.

393

Chemagro offers 'practical' program to selectively control pests of cotton.

400

Experiments on the insecticidal control of *Oxyechus fuscomaculatus* Walker (Lepidoptera: Hepialidae).

412

Insecticidal susceptibility of *Nysius raphanus*, a pest of cotton.

449

Cutworms and armyworms.

478

Some recommendations for the control of perforators of seeds of Anonaceae (Bephrata sp. order Hymenoptera).

500

Stem applications of azodrin for control of the cotton fleahopper.

501

Biology and control of the morning-glory leaf miner, *Bedellia somnulentella*, on sweet potatoes.

512

Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California.

521

Control of *Sparganothis sulfurana* on cranberry.

527

A note on the control of the semi-cooper, *Achaea Janata* L., on castor.

534

Control of the beet armyworm on cotton in Arizona.

538

Comparative toxicities of insecticides to house fly larvae and *Macrocheles muscaedomestica*, a mite predator of the house fly.

888

The toxicological effect on animals of mixtures of chlorophos and DDT.

927

Combined action of DDT with chlorophos and of thiophos with chlorophos.

954

### TRICHLORION

A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.

548

Salt-marsh caterpillar control on cotton in Arizona.

567

### TRICHOPLUSIA

Laboratory tests of insecticides against eggs and larvae of the cabbage looper.

135

Genetic factor controlling colour and its association with DDT sensitivity in the cabbage looper.

256

Evaluation of chemical and microbial materials for the control of the cabbage looper.

408

Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia.

429

Laboratory tests of insecticides against eggs and larvae of the cabbage looper.

447

Insecticide sprays for control of insects on various vegetable crops.

543

### TRICHOPLUSIA NI

A genetic factor controlling color and its association with DDT sensitivity in the cabbage looper.

258

Cabbage looper control in Florida - a cooperative program.

404

### TRICHOPTERA

Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick.

121

Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon.

132

Repopulation by aquatic insects in streams sprayed with DDT.

606

### TRIOPS

Control of the tadpole shrimp, *triops longicaudatus* in California rice fields.

407

### TROGODERMA

Relative toxicity of insecticidal films to adults of *Trogoderma granarium* Everts., *Oryzaephilus surinamensis* L. and *Laemophloeus minuthus* Oliv.

18

### TROPICAL AGRICULTURE

Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions.

470

### TROUT

Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*.

586

DDT. Sublethal effects on brook trout nervous system.

693

Pesticides in hatchery trout---differences between species and residues levels occurring in commercial fish food.

702

Problems with DDT in fish culture operations.

720

DDT residues and metabolites in Canadian Atlantic coast fish.

734

Effect of sublethal DDT on the lateral line of brook trout, *Salvelinus fontinalis*.

883

DDT: Sublethal effects on brook trout nervous system.

884

Growth and resistance to stress in brook trout fed sublethal levels of DDT.

929

Role of intestinal microflora in the degradation of DDT by rainbow trout (*Salmo gairdneri*).

958

### TRYPANOSOMA CONGOLENSE

The control of tsetse and trypanosomiasis in the north-eastern districts of Rhodesia.

599

### TRYPETIDAE

Laboratory tests of some insecticides against adults of the apple maggot, *Rhagoletis pomonella*.

456

### TSUGA

Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill.

333

Precision application credited with success of forest project.

338

Hemlock looper control spraying called best planned and safest forest project.

547

- TURF**  
Residual activity of chlorinated hydrocarbon insecticides in permanent turf for European chafer control. 398
- UGANDA**  
The control of yellow tea mite, *Hemitarsonemus latus* (Banks), with DDT on cotton in Uganda. 437
- ULMUS**  
Low temperature sprays for Dutch elm disease control. 323
- UNITED STATES**  
Is there room for U.S. firms in the European pesticide market. 1058
- UREA**  
Effect of urea on control of some apple insects with certain insecticides. 432
- URINE**  
DDT in humans and animals; determination of DDA in urine using an ion exchange resin. 721  
Insecticide exposure: A sensitive procedure for urinary p-nitrophenol determination as a measure of exposure to parathion. 743
- UTERUS**  
Estrogenic activity of o,p'-DDT in the mammalian uterus and avian oviduct. 576  
Estrogenic action of DDT and its analogs. (Abstract). 928
- VACCINES**  
Tick fever in poultry. 593
- VAPORIZATION**  
Screening methods for organochlorine and organophosphate insecticides in foods and feeds. 1021
- VARIANCE ANALYSIS**  
Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 295
- VEGETABLES**  
Insect control for garden vegetables. 311  
New insecticides for lygus bug control on vegetable seed crops. 336  
New insecticides for lygus bug control on vegetable seed crops. 373  
Microcoulometric gas chromatography of pesticides. 718  
Determination of DDT in leafy vegetables. 773  
Separation and measurement of perthane, DDD(TDE), and DDT in leafy vegetables by electron capture gas chromatography. 774  
Field weathering of toxaphene and chlordane. 776  
Commercial aspects of pesticide residues in foodstuff. 793  
Identification of pesticide residues in extracts of fruit, vegetables and animal fats III. Metabolites of chlorinated hydrocarbon pesticides in animal depot-fat. 797  
Residues in vegetable crops following soil applications of insecticides. 851  
Separation and measurement of perthane, DDD(TDE) and DDT in leafy vegetables by electron-capture gas chromatography. 1009
- VEHICLES**  
Insecticidal dusts against Japanese beetles and European chafers for disinsectization of transport vehicles. 87
- VELOCITY**  
The optimum size for insecticide spray droplets. 1003
- VELSICOL 1-BROMOCHLORDENE**  
Laboratory evaluation of insecticides against the cigarette beetle. 894
- VENOMS**  
Controlling wasps. 35
- VERICILLIUM**  
Effects of insecticides on insects and pathogenic fungi associated with alsike clover roots. 314
- VERMICULITE**  
Loss of parathion and DDT to soil from aqueous dispersions and vermiculite granules. 1031
- VERTEBRATES**  
Insecticide-cytoplasmic interactions in insects and vertebrates. 224  
Dynamics of organochlorine insecticides in vertebrates and ecosystems. 943
- VESPIDAE**  
Controlling wasps. 35  
Wasp nests. 45
- VETCH**  
Control of vetch bruchid, *Bruchid brachialis*, in Oregon. 389
- VIRGIN ISLANDS**  
Comparison of Sevin with DDT and rotenone on tomatoes under tropical conditions. 318
- VIRGINIA**  
Control of the lesser peach tree borer in virginia. 358  
Utilization of a nuclear polyhedrosis virus to control the cabbage looper on cole crops in Virginia. 429
- VIRUS DISEASES (ANIMALS)**  
Efficacy of use of some phospho-organic compounds as acaricides in foci of tick-borne encephalitis. 301
- VIRUS DISEASES (PLANTS)**  
Tomato spotted wilt (tomato spotted wilt virus). 327  
Tomato yellow top. 328  
Rice leafhoppers. 477  
Controlling peach yellows in a peach breeding program. 480
- VIRUSES**  
*Neodiprion taedae linearis*: A sawfly pest of loblolly and shortleaf pines. 383
- VOLATILE SUBSTANCES**  
Persistent pesticides. 688  
Retention and volatilization of lindane and DDT in presence of organic colloids isolated from soils and Leonardite. 828
- WALNUTS**  
The navel orangeworm in northern California. 562
- WAREHOUSES**  
Insecticide residue in foods subjected to aerosols under simulated warehouse conditions. 794
- WARF ANTIRESTANT**  
Effectiveness of WARF Antiresistant as an additive to DDT for control of resistant house flies. 237  
WARF anti-resistant: DDT selection and house fly crossresistance. 247
- WARFARIN**  
Diagnosis and treatment of poisoning in dogs. 590  
Report on analytical methods for pesticide formulations. 1001
- WASHINGTON**  
Carbaryl, phosphamidon, and DDT tests on the western hemlock looper in Washington. 58  
Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333  
Evaluation of new materials for codling moth control in Washington. 431
- WATER**  
Gas-liquid chromatography analysis of DDT metabolism in *Aedes aegypti*. 119  
Laboratory tests of larvicides for mosquito control in potable waters. (abstract). 126  
Low temperature sprays for Dutch elm disease control. 323  
Predicting and measuring the solubility of p,p'-DDT in water. 638  
Effect of soil cultivation, soil surface and water on the persistence of insecticidal residues in soils. 661  
Note on the effect of water on soxhlet extraction of some organochlorine insecticides from soil and comparison of this method with three others. 677  
Survival of fish in 164 herbicides, insecticides, fungicides, wetting agents and miscellaneous substances. 882  
Effects of various water volumes on the effectiveness of methyl parathion-DDT in controlling the cotton boll weevil, *Anthonomus grandis*. 936  
Insecticide solubility: Solubility of carbon-14 DDT in water. 988  
Distribution ratio of some chlorinated hydrocarbon insecticides between hexane and water. 1027  
The effect of the association of organic material with clays on parathion and DDT adsorption. 1028  
Loss of parathion and DDT to soil from aqueous dispersions and vermiculite granules. 1031  
DDT and heptachlor as black-fly larvicides in clear and turbid water. 1051
- WATER ANALYSIS**  
DDT: The critics attempt to ban its use in Wisconsin. 641  
Collection and analysis of synthetic organic pesticides from surface and ground water. 652  
Water flora as indicators of irrigation water contamination by DDT. 675  
Interaction of pesticides with natural organic material. 676
- WATER POLLUTION**  
Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 121



# SUBJECT INDEX

## WATERWAYS

- Effects of forest spraying with DDT on aquatic insects of salmon streams in New Brunswick. 122
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 132
- Distribution of insecticides sprayed by airplane on an irrigated corn plot. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 424
- Pesticide monitoring programs. 639
- Environmental pollution: Scientists go to court. 640
- DDT: The critics attempt to ban its use in Wisconsin. 641
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 644
- Anaerobic degradation of selected chlorinated hydrocarbon pesticides. 650
- Research on pollution of crops, soil and shallow bodies of water in Liguria, through residues of some organochlorinated pesticides. 655
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 656
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 659
- Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography. 660
- DDT: Criticism, curbs are on the upswing. 665
- Pesticides: Transatlantic movements in the Northeast trades. 667
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 668
- Determination of pesticides in water by microcoulometric gas chromatography after liquid-liquid extraction. 670
- Persistence of pesticides in orchards and orchard soils. in: Organic pesticides in the environment; symposium...American Chemical Society, Atlantic City, N.J., Sept. 13-15, 1965. robert J. gould, ed. 672
- Water pesticides. 2. 674
- Water flora as indicators of irrigation water contamination by DDT. 675
- DDT residues in a East Coast estuary, a case of biological concentration of a persistent insecticide. 678
- Methoxychlor as a blackfly larvicide, persistence of its residues in fish and its effect on stream arthropods. 708
- Effects on wild young salmon of spraying DDT over New Brunswick forests. 744
- Effects of forest spraying with DDT in New Brunswick on food of young Atlantic salmon. 769
- Studies on effects of forest sprayings with insecticides, 1952-63, on fish and aquatic invertebrates in New Brunswick streams: Introduction and summary. 770

- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 771
- Problems in WHO on pesticide residues. in: Radioisotopes in the detection of pesticide residues; proceedings of a panel Vienna 12-16 April 1965. sB953.P32. 850
- DDT reduces photosynthesis by marine phytoplankton. 878
- The uptake from water by several species of fresh-water fish of p.p:DDT, dieldrin, and lindane; their tissue distribution and elimination rate. 912
- Fish losses after forest sprayings with insecticides in New Brunswick, 1952-62, as shown by caged specimens and other observations. 926
- Degradation of gamma-BHC in simulated lake impoundments as affected by aeration. 1017
- WATERWAYS**
- Pinpoint spraying - accurate spraying application credited for a 99.7 per cent kill. 333
- WEATHER**
- A summary of forest and shade tree insect-disease conditions for Maine 1967. 4
- Field weathering of toxaphene and chlordane. 776
- DDT deposits on grapes as affected by growth and weathering. 855
- WEED CONTROL**
- Heavy supply and low demand. 1056
- WEEDS**
- Influence of certain insecticides applied for the control of *Ostrinia nubilalis* Hbn. on the weeds of treated surfaces. 570
- WHEAT**
- Penetration of seeds by acetone solutes. 334
- DDT-C14 translocation in alfalfa. 537
- The use of organochlorine insecticides and possible alternatives against leatherjackets. 541
- WHITE CLOVER**
- Bee poisoning versus clover seed weevil control in white dutch clover grown for seed. 441
- WILDLIFE**
- Safety of wildlife is important to planners of gnat-control program. 419
- Effects of an aerial DDT spray on aquatic insects in Connecticut. 425
- Mississippi delta wildlife developing resistance to pesticides. 579
- Effects of pesticides on wildlife. 664
- DDT problem at a glance. 706
- Residues in fish, wildlife, and estuaries. Insecticide concentrations in wildlife at Presidio, Texas. 722
- DDT reportedly discovered in antarctic seals and fish. 752
- An evaluation of the effects of the *Aedes aegypti* eradication program on wildlife in South Florida. 784
- DDT residues in Adelie penquins and a crabeater seal from Antarctica. 843

- DDT residues in Adelie penguins and a crabeater seal from Antarctica. 844
- Chemical vs environmental changes. Their effects on wildlife. 921
- WIND**
- Effect of climatic factors on the susceptibility of insects to insecticides. 514
- WINGS (INSECTS)**
- Some new mutants and linkage groups of the house fly. 251
- WISCONSIN**
- Spiders on apple in Wisconsin and their abundance in a natural and two artificial environments. 14
- An ecological study of arthropod populations on apple in northeastern Wisconsin: species affecting the fruit. 15
- An ecological study of arthropod populations on apple in northeastern Wisconsin: insect species present. 16
- WOOD**
- DDT is shown to persist in wood. 686
- WOOD BORERS**
- The old house borer in Eastern States. 38
- XYLENE**
- Aromatic solvents for pesticides. 1018
- YELLOW TOP**
- Tomato yellow top. 328
- YELLOW S**
- Controlling peach yellows in a peach breeding program. 480
- YPONOMEUTIDAE**
- Some ecological observations and results of the control of *Argyresthia fundella* F. R. 516
- ZECTRAN**
- Carbamate and phosphate resistance in adult granary weevils. 255
- Insecticide sprays for control of insects on various vegetable crops. 543
- ZEUZERA PYRINA**
- Biology and control of leopard moth on pear trees in the United Arab Republic. 84
- Biology and control of leopard moth on pear trees in the United Arab Republic. 393
- ZINC**
- Metals, other elements, and residues in foods. 831
- ZINC SULFATE**
- Changes in insecticide sensitivity in the bean weevil *Acanthoscelides obtectus* Say, brought about by induced pigment formation. 192
- ZINEB**
- Diseases and parasites of the rose. 322
- Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997
- ZIRAM**
- Recent developments in the detection and determination of pesticides and their residues by oscillographic polarography. 997
- ZOO GEOGRAPHY**
- The old house borer in Eastern States. 38

# SUBJECT INDEX

Resistance to organochlorine insecticides in the tuber flea beetle, <i>Epitrix tuberis</i> Gent. (Coleoptera: Chrysomelidae), in British Columbia.	44	Prospects for the eradication of malaria in Algeria.	272	Pesticide effects in soils on nitrification and plant growth.	831
On the biology of <i>Simulium damnosum</i> Theobald, 1903, the main vector of onchocerciasis in the Mahenge Mountains, Ulanga, Tanzania.	106	The principle insect pests of beets and the means of their control in turkey.	282	Recommended analytical methods for pesticides. 17. 2,4-D,2, 4-D salts and 2,4-d formulations. 18. DDT dusts and waterdispersible powders.	976
Research on bio-ecology of <i>Sitona crinitus</i> (Herbst) and method for chemical control.	136	Some ecological observations and results of the control of <i>Argyresthia fundella</i> F. R.	482	Carryover stocks of pesticides increased over 1960 level.	981
The leatherjacket risk grows.	148	The cicadelle <i>Empoasca flavescens</i> and the grill of grapevines in the South-West of France.	516	Is there room for U.S. firms in the European pesticide market.	1054
The brown-banded cockroach in Hamburg.	236	Black flies (Diptera, Simuliidae) of Vologda region and their control.	528		1058
Review of classical malaria control measures.	271		597	2,4,5-T	
<i>Aedes aegypti</i> in the Western Pacific region.		2,4-D		Recommended analytical methods for pesticides. 17. 2,4-D,2, 4-D salts and 2,4-d formulations. 18. DDT dusts and waterdispersible powders.	981
		Metals, other elements, and residues in foods.			





# BIOGRAPHICAL INDEX

<b>Abedi, Z H</b> Institute Of Tropical Medicine, Harbel, Liberia	26	<b>Barlow, C A</b> Carleton University, Ottawa, Canada; Dept. of Biology	47	<b>Brewerton, H V</b> Department of Scientific and Industrial Research; Wellington, New Zealand; Chemistry Div.	705
<b>Abou-Donia, M B</b> California University, Berkeley	880	<b>Barnes, W W</b> Army Environmental Hygiene Agency, Edgewood Arsenal, Md.; Medical Entomology Div.	270	<b>Brown, A W A</b> University of Western Ontario, London, Canada	56
<b>Abou-Donia, M B</b> Texas A and M Univ., College Station 77843; Dept. of Biochemistry and Biophysics	983	<b>Beall, M L</b> U. S. dept. of Agriculture. agricultural Research Service; Crops Research Division, Beltsville	569	<b>Brown, L R</b> California Univ., Riverside; Dept. of Entomology	367
<b>Abraham, E V</b> Office of Assistant Entomologist, Hill Crops, Kodaikanal.; India	339	<b>Bejer-Petersen, B</b> Royal Veterinary And Agricultural Coll., Copenhagen, Denmark	351	<b>Buffam, P E</b> U. S. Forest Service, Berkeley, Calif.; S. W. Forest And Range Experiment Station	58
<b>Agosin, M</b> U. S. Public Health Service; Nation Institutes Of Health	31	<b>Berger, R S</b> U. S. Dept. Agriculture, Brownsville, Tex.	986	<b>Bullock, H R</b> Agricultural Research Service, Brownsville, Tex; Entomology Research Division	60
<b>Agosin, M</b> Georgia Univ., Athens; Dept. of Zoology	33	<b>Bertran, M</b> Station de Recherches de Lutte Biologique et de Zoologie; Agricole, Antibes, France	352	<b>Burbutis, P P</b> H. P. Cannon And Son, Inc., Bridgeville, Del.	368
<b>Ahrens, J F</b> Connecticut Agricultural Experiment Station, Windsor	691	<b>Bevan, D</b> Forestry Commission Research Station, Farnham, England; Forest Entomology	353	<b>Burden, G S</b> U. S. Dept. of Agriculture, Gainesville, Fla.; Agricultural Research Service; Entomology Research Division	61
<b>Al-Hachim, G M</b> Oregon State Univ., Corvallis	881	<b>Bhatia, L J</b> Directorate of Plant Protection, New Delhi, India; Quarantine and Storage	354	<b>Burdick, G E</b> New York State Conservation Dept., Albany	708
<b>Alabaster, J S</b> Ministry of Technology; Water Pollution Research Laboratory	882	<b>Bigger, J W</b> California Univ., Davis; Dept. of Water Science and Engineering	638	<b>Busvine, J R</b> London School of Hygiene and Tropical Medicine, London; Entomology Hygiene	245
<b>Anderson, J M</b> Fisheries Research Board of Canada, Saint Andrews, New Brunswick; Biological Station	586	<b>Bindra, O S</b> Punjab Agricultural Univ., Ludhiana, India; Dept. of Zoology-Entomology	355	<b>Cannon, M S</b> Ohio State University, Columbus; Dept of Anatomy	577
<b>Anderson, J M</b> Fisheries Research Board of Canada, St. Andrews, New Brunswick; Biological Station	693	<b>Bitman, J</b> Department of Agriculture, Beltsville, Md.; Animal Husbandry Research Div.	576	<b>Cannon, M S</b> Ohio. state University; Dept. of Anatomy	598
<b>Anderson, J M</b> Fisheries Research Board of Canada, St. Andrews, New Brunswick; Biological Station	883	<b>Bleiberg, M J</b> Food And Drug Administration, Washington, D. C.; Division Of Pharmacology	889	<b>Capek, M</b> Forstliche Versuchsanstalt, Banska Stiavnica, Czechoslovakia	64
<b>Anderson, J M</b> Canada Biological Station, St. Andrews, New Brunswick; Fisheries Research Board	884	<b>Bogner, R L</b> Nuclear Science and Engineering Corporation, Pittsburgh	701	<b>Caswell, T J</b> Rhodeisa. dept. of Veterinary Services; Branch of Tsetse and Trypanosomiasis Control	599
<b>Anderson, W W</b> Yale Univ., New Haven, Conn.; Dept. of Biology	244	<b>Boock, J O</b> Instituto Agronomico, Campinas, Brazil	321	<b>Chacko, C I</b> Michigan State University, East Lansing; Dept. of Botany and Plant Pathology	710
<b>Ando, K</b> Sankyo Co.; Agricultural Chemical Research Laboratories, Shiga-Ken	37	<b>Borle, M N</b> College of Agriculture, Poona-5, India	890	<b>Champ, B R</b> Queensland Dept. of Primary Industries, Australia; Div. of Plant Industry	966
<b>Arnott, D A</b> Canada Dept. of Agriculture, Kamloops; Research Branch	344	<b>Bourke, T V</b> Department of Agriculture, Stock and Fisheries; Popondetta, Territory of Papua and New Guinea	360	<b>Chaudhury, R P</b> Indian Veterinary Research Inst., Izatnagar	600
<b>Atallah, Y H</b> U. S. Dept. Of Agriculture; Agriculture Research Service; Entomology Research Division	885	<b>Boyd, E M</b> Queen's Univ., Kingston, Ontario, Canada; Dept. of Pharmacology	587	<b>Chaudhury, R P</b> Indian Veterinary Research Inst., Izatnagar	601
<b>Attiah, H H</b> Louisiana State University	5	<b>Bradford, A</b> Pennsylvania State Univ., Univ. Park, Pa.; Pesticide Research Labs.	702	<b>Cherrington, A D</b> New Brunswick Univ., Fredericton, Canada; Dept. of Biology	711
<b>Atwal, A S</b> Ludhiana, India. college of Agriculture	346	<b>Bradley, G H</b> Public Health Service, Atlanta, Ga.; Center for Communicable Diseases	271	<b>Chikkerur, S K</b> Central Plant Protection Station, Dharwar, India	376
<b>Aubin, A E</b> Alberta Univ., Edmonton; Zoology Dept.	887	<b>Brammanis, L</b> Koeniglich Forstliche Hochschule, Stockholm, Sweden; Entomologisches Institut	361	<b>Childs, D P</b> U. S. Dept. Of Agriculture; Stored-Product Insects Research Branch	894
<b>Axtell, R C</b> U. S. Public Health Service	888	<b>Brazzel, J R</b> Mississippi State University; Entomology Dept.	54	<b>Christie, A E</b> Ontario Water Resources Commission, Toronto; Div. of Research	895
<b>Bai, B S</b> Agricultura Col6. and Research Inst., Coimbatore-3, India	347	<b>Brett, C H</b> North Carolina Experiment Station, Raleigh; Dept. Of Entomology	365	<b>Chung, R A</b> Tuskegee Inst., Ala. 36088; Carver Research Foundation	713
<b>Balazs, K</b> Novenyvedelmi Kutato Intezet	637	<b>Brewerton, H V</b> New Zealand. dept. of Scientific and Industrial; Research; Chemistry Division, Wellington	704	<b>Ciesliczak, A</b> Laboratorium Centralnego Inspektoratu Standaryzacji, Poznan.; Poland	714
<b>Banham, F L</b> Canada Agriculture Research Branch, Summerland	44			<b>Collett, N</b> Dept. of Agriculture, Wellington, New Zealand; Wallaceville Animal Research Centre	716
<b>Banks, C C</b> Department of Agriculture, Paeroa, New Zealand	45				



# BIOGRAPHICAL INDEX

**Collins, J A**

**Collins, J A**  
Kentucky University, Lexington, Kentucky; Dept.  
of Animal Sciences 967

**Collins, J A**  
Kentucky University; Dept. of Animal Sciences 968

**Corrigan, J J**  
Tufts University; School Of Medicine; Dept. Of  
Biochemistry 897

**Coulson, D M**  
Stanford Research Institute, Menlo Park, Califor-  
nia; Department of Chemistry 718

**Coyne, J F**  
Forest Service, Washington, D. C.; Southern Forest  
Experiment Station 383

**Coz, J**  
Office de la Recherche Scientifique et Technique;  
Outre-Mer, Bobo-Dioulasso, Upper Volta; Centre  
Muraz 72

**Coz, J**  
Organisation de Coordination et de Cooperation  
pour la; Lutte contre les Grandes Endemies, Bobo-  
Dioulasso, Upper; Volta; Laboratoire d'Ento-  
mologie Medicale du Centre Muraz 273

**Cuerrier, J P**  
Canadian Wildlife Service, Ottawa 720

**Culley, D D**  
Mississippi State Univ., State Coll., Miss. 722

**Dale, W E**  
U.S. Public Health Service, Atlanta; Communicable  
Disease Center 723

**Dale, W E**  
U.S. Public Health Service, Atlanta; Communicable  
Disease Center 724

**Danthanarayana, W**  
Tea Research Inst. of Ceylon, St. Coombs; Ento-  
mology Div. 384

**Datta, P R**  
Food and Drug Administration, Washington, D. C.;  
Div. of Pharmacology 900

**Daum, R J**  
U.S. Dept. Of Agriculture, Beltsville, Md.; Agricul-  
tural Research Service; Plant Industry Station;  
Biometrical Service 385

**Davies, J B**  
Trinidad Regional Virus Lab., Port-of-Spain; Medi-  
cal Research Council 274

**Davies, J E**  
Public Health Service 726

**Davis, F W**  
Massachusetts University, Amherst 578

**Desi, I**  
University Medical School, Budapest, Hungary;  
Neuropathophysiological Lab. 901

**Dewan, R S**  
Indian Agricultural Research Inst., New Delhi; Div.  
of Agricultural Research Chemicals 729

**Dimond, J B**  
Maine Univ., Orono; Dept. of Entomology 730

**Dinther, J. B. M. van**  
Agricultural University Wageningen, Netherlands;  
Laboratory of Entomology 78

**Dolby, R M**  
New Zealand Dairy Research Inst., Palmerston  
North, New; Zealand 731

**Drebbel, M L**  
Department of Forestry and Rural Development,  
Ottawa 6

**Drees, H**  
Bonn, West Germany 310

**Duperrex, A**  
Ecole d Horticulture de Chatelaine, Geneva, Swit-  
zerland 322

**Dustan, G G**  
University Of Western Ontario, London; Dept. Of  
Zoology 737

**Dustman, E H**  
Patuxent Wildlife Research Center, Laurel, Md.;  
Bureau of Sport Fisheries and Wildlife; U. S. Fish  
and Wildlife Service 738

**Eaton, J L**  
U. S. Public Health Service; Division Of General  
Medical Sciences 80

**Ecobichon, D J**  
Guelph University, Ontario, Canada; Dept. of  
Physiology and Pharmacology 905

**El-Tahtaoui, M M**  
Institute for Scientific Research in Plant Protection  
of; the Ukraine, USSR. 83

**Eldefrawi, M E**  
Alexandria University, Alexandria; College of  
Agriculture; Dept. of Plant Protection 84

**Eldefrawi, M E**  
Alexandria. university. college of Agriculture;  
Dept. of Plant Protection 393

**Elkins, E R**  
National Canners Association, Washington, D C 742

**Elliott, J W**  
U. S. Dept. Of Agriculture, Entiat, Wash.; Fish And  
Wildlife Service 743

**Elson, P F**  
Fisheries Research Board of Canada, St. Andrews,  
New; Brunswick; Biological Station 744

**Epstein, A H**  
Iowa State Univ., Ames; Dept. of Botany and Plant  
Pathology 323

**Erwin, D C**  
California. university; Dept. of Plant Pathology,  
Riverside 645

**Espul, J C**  
Estacion Experimental Agropecuaria, La Consulta,  
Argentina; Tecnico en Entomologia 394

**Farkas, I**  
Institute of Nutrition, Budapest, Hungary;  
Neropathophysiological Lab. 906

**Farrow, R P**  
National Canners Association, Washington, D. C. 745

**Fellin, D G**  
U. S. Dept. of Agriculture, Ogden, Utah; Forest  
Service; Intermountain Forest and Range Experi-  
ment Station 7

**Fenemore, P G**  
DSIR, Nelson, New Zealand; Entomology Division 395

**Fenili, G A**  
Stazione di Entomologia Agraria, Florence, Italy 396

**Ferguson, D E**  
Mississippi State Univ., State College 39762 747

**Ferguson, D E**  
Mississippi State Univ., State College 39762 907

**Fiori, B J**  
New York State Agricultural Experiment Station,  
Geneva; Entomology Research Div. 87

**Flynn, A D**  
U.S. Communicable Disease Center, Savannah;  
Aedes AEGYPTI Eradication Program.; Technical  
Development Laboratories.; Biology Section 278

**Foster, A E**  
North Dakota State Univ.; Dept. of Agronomy 970

**Foster, T S**  
Canada Dept. of Agriculture, Ottawa; Central Ex-  
perimental Farm; Research Branch; Animal  
Research Institute 580

**French, M C**  
England. monks Wood Experimental Station; Na-  
ture Conservancy, Huntingdonshire 910

**Fries, G F**  
U. S. Dept. of Agriculture, Beltsville, Maryland;  
Animal Husbandry Division 996

**Galichet, P F**  
Station de Recherches; De Zoologie Agricole  
Biocenotique tropicale; Lutte Biologique 89

**Gambrell, F L**  
New York State Agricultural Experiment Station,  
Geneva 398

**Gaprindashvili, N K**  
Ministry of Agriculture of the Georgian SSSR,  
Tbilisi; Plant Protection Inst. 399

**Garnham, P C C**  
London School of Hygiene and Tropical Medicine;  
Dept. of Parasitology 280

**Gast, R T**  
U.S. Dept. Of Agriculture; Boll Weevil Laboratory 554

**Gaur, A C**  
Indian Agricultural Research Institute; Division of  
Microbiology, New Delhi 971

**George, J**  
Central Building Research Inst., Roorkec, India 624

**Gillett, J W**  
Oregon State Univ., Corvallis 97331; Dept. of  
Agricultural Chemistry 753

**Goble, H W**  
Guelph University; Ontario Agricultural College;  
Dept. of Zoology 311

**Gould, H J**  
Great Britain National Agricultural Advisory Ser-  
vice, Reading 403

**Greene, G L**  
Central Florida Experiment Station 404

**Greenup, L R**  
Department of Agriculture, Rydalmere, Australia;  
Div. of Science Services 405

**Greenup, L R**  
Department of Agriculture, Rydalmere, Australia;  
Div. of Science Services 406

**Greer, G L**  
Carlton Univ., Ottawa, Ontario, Canada; Dept. of  
Biology 755

**Greer, G L**  
Carleton Univ., Ontario; Dept. of Biology 914

**Guneidy, A M**  
Ain Shams University, Abbassiya, Cairo, UAR;  
Faculty Of Science; Dept. Of Entomology 97

**Guy, Y**  
Faculte de Medecine et de Pharmacie, Algeria;  
Lab. de Parasitologie et de Zoologie Medecale 282

**Haas, G J**  
General Foods Corp., Tarrytown, N. Y.; Dept. of  
Corp. Research 757

# BIOGRAPHICAL INDEX

Langlois, B E

<b>Haenggi, A</b> Eysins, Vaud, Switzerland		<b>Hoyt, S C</b> American Cyanamid Company		<b>Kalra, R L</b> National Institute of Communicable Diseases, Delhi, India	
	98		431		253
<b>Hamon, J</b> Office de la Recherche Scientifique et Technique, Paris; Entomologiste medical	99	<b>Hudon, M</b> Research Station, St. Jean, Quebec	434	<b>Kanitz, S</b> Genova Univ., Italy; Istituto di Igiene	655
	250	<b>Hudon, M</b> Research Station, St. Jean, Quebec	435	<b>Kawada, A</b> National Institute of Agricultural Sciences	445
<b>Hardy, R J</b> Tasmanian Dept. of Agriculture, Hobart	412	<b>Hunt, L B</b> Eastern Illinois University, Charleston; Dept. of Zoology	767	<b>Kawano, Y</b> Hawaii. university; Dept. of Agricultural Biochemistry	768
<b>Harris, C R</b> Canada Dept. of Agriculture, London. Ontario; Research Institute	104	<b>Hunt, L B</b> Eastern Illinois. university; Dept. of Zoology, Char- leston	919	<b>Kawano, Y</b> Hawaii University, Honolulu; Dept. of Agricultural Biochemistry	1006
	105	<b>Ide, F P</b> Toronto Univ., Ontario; Dept. of Zoology	122	<b>Keenleyside, M H A</b> Fisheries Research Board of Canada, St. Andrews; Biological Station	132
<b>Harrison, D L</b> Department of Agriculture, Wellington, New Zea- land; Wallaceville Animal Research Centre	761	<b>Ide, F P</b> Toronto University, Toronto, Ontario, Canada; Dept. of Zoology	581	<b>Keenleyside, M H A</b> Western Ontario Univ., London; Dept. of Zoology	769
<b>Hausermann, W</b> Swiss Tropical Inst., Basel	106	<b>Ignoffo, C M</b> International Minerals And Chemical Corp., Wasco, Calif.; Bioferm Division	123	<b>Keiding, J</b> Denmark Government Pest Infestation Laboratory, Lyngby	133
<b>Hawkins, W B</b> U. S. Public Health Service, Savannah, Ga.; Com- municable Disease Center; Technical Development Laboratories	1002	<b>Ilivicky, J</b> Chile University, Santiago; School of Medicine; Chair of Chemistry; Dept. of Parasitology	124	<b>Kelsey, J M</b> New Zealand Dept. of Scientific and Industrial Research.; Lincoln; Entomology Division	134
<b>Hayashi, A</b> Taisho Pharmaceutical Co. Ltd., Japan; Lab. of Applied Entomology	108	<b>Iordanou, N T</b> Canada Dept. of Agriculture, Winnipeg, Manitoba; Research Branch	125	<b>Kershaw, W E</b> University of Salford, Great Britain; Dept. of Zoology	2
<b>Hayashi, M</b> Wisconsin University, Madison; Dept. of En- tomology	109	<b>Iren, Z</b> Zirai Mucadele Enstitusu Meyva ve Bag Zararlilari Labura; Tuvvari Sefi, Ankara	438	<b>Kerswill, C J</b> Fisheries Research Board of Canada, Ste. Anne de Bellevue.; Quebec	770
<b>Helson, G A H</b> Department of Agriculture, Wellington, New Zea- land	420	<b>Isaacson, P A</b> Port Jefferson Station, 147 Howard Street, N. Y.	920	<b>Kerswill, C J</b> Fisheries Research Board of Canada, Ste. Anne de Bellevue.; Quebec	771
<b>Hemmerlein, A H</b> Rutgers University, New Brunswick, N. J.; Dept. of Entomology and Economic Zoology	111	<b>Jackson, W B</b> Bowling Green State University	921	<b>Khan, M A Q</b> Oregon State University, Corvallis; Dept. of En- tomology	254
<b>Hills, K L</b> Melbourne, Victoria, Australia.	605	<b>Janes, M J</b> Florida University. everglades Experiment Station	439	<b>Kilic, A U</b> Zirai Mucadele Enstitusu Muduru, Diyarbakir, Turkey	136
<b>Himel, C M</b> Georgia. university; Dept. of Entomology	1003	<b>Jenkins, D H</b> Michigan Dept. of Conservation; Research and Development Div.	653	<b>Ko, W H</b> Michigan State University, East Lansing; Dept. of Botany and Plant Pathology	312
<b>Hindin, E</b> Washington State University, Pullman; College of Engineering; Research Division	424	<b>Jensen, S</b> Stockholm Univ., Sweden; Inst. for Analytical Chemistry	654	<b>Ko, W H</b> Michigan State University, East Lansing; Dept. of Botany and Plant Pathology	313
<b>Hindin, E</b> Washington State University; College of Engineer- ing; Research Division	764	<b>Jeppson, L R</b> California University, Riverside	558	<b>Ko, W H</b> Michigan State University, East Lansing	657
<b>Hooper, G H S</b> University of Queensland, St. Lucia, Australia; Dept. of Entomology	113	<b>Johnson, G V</b> Agricultural Research Service, Washington, D. C.; Entomology Research Div.	128	<b>Koch, R B</b> Honeywell Research Center, Hopkins, Minn.	138
<b>Hooper, G H S</b> University Of Queensland, Brisbane, Australia; Dept. Of Entomology	115	<b>Jones, E L</b> New South Wales Agricultural College and Research Station	442	<b>Kotarski, A</b> Institut Przemyslu Organicznego, Warszawa, Pol- and	1011
<b>Hooper, G H S</b> University Of Queenland, Brisbane, Australia; Dept. Of Entomology	116	<b>Jones, F J S</b> Ministry of Agriculture, Worplesdon, Guildford, Surrey; Field Research Station; Fisheries and Food Infestation Control Laboratory	582	<b>Kuhne, H</b> Bundesanstalt fur Materialprufung, Berlin, West Germany	139
<b>Hooper, G H S</b> University of Queensland, Brisbane, Australia	118	<b>Jones, J M</b> National Agricultural Advisory Service, Trawscoed, Aberyst, Wyth, Wales	924	<b>Kury, C R</b> Cornell Univ., Ithaca, N. Y.; Dept. of Conservation	778
<b>Hooper, G H S</b> University of Queensland, Brisbane, Australia; Dept. of Entomology	119	<b>Jorg, J</b> Bundesanstalt fur Pflanzenschutz, Wien, Austria	1005	<b>Laben, R C</b> California Univ., Davis; Dept. of Animal Science	658
<b>Horning, O</b> Pflanzenschutzamt des Landes Schleswig-holstein	430	<b>Kaliser, L A</b> Georgia Medical College, Augusta	925	<b>Lamh, F C</b> National Canners Association, Berkeley, Calif. 94710	779
		<b>Kalra, R L</b> National Institute of Communicable Diseases, Delhi, India	130	<b>Lamh, F C</b> National Canners Association, 1950 Sixth Street, Berkley	780
		<b>Kalra, R L</b> National Inst. of Communicable Diseases, Delhi, India	131	<b>Langlois, B E</b> Purdue University; Department of Animal Science	781



# BIOGRAPHICAL INDEX

## Langlois, B E

- Langlois, B E**  
Purdue University; Department of Animal Science 782
- Lawler, P D**  
Wales University College, Aberystwyth; Dept. of Biochemistry and Agricultural Biochemistry 975
- Ledbetter, R J**  
Mississippi State University, State College 559
- Ledford, R A**  
Cornell University, Ithaca, New York; Dept. of Food Science 783
- Legner, E F**  
University Of California, Davis; Dept. Of Biological Control 14
- Lehner, P N**  
Utah State Univ., Logan; Utah Cooperative Wildlife Research Unit 784
- Lestschenko, P D**  
Institut for Nutritional Hygiene, Kiev, USSR 927
- Levin, W**  
Burroughs Wellcome and Company Incorporated.; Tuckahoe, New York 928
- Lewis, D T**  
Laboratory of the Government Chemist, England 785
- Li, C F**  
Wisconsin Univ., Madison; Dept. of Food Science and Industries 786
- Lichtenstein, E P**  
Shell Chemical Corporation 661
- Lichtenstein, E P**  
Shell Chemical Corporation 787
- Lipke, H**  
Army Chemical Center, Md.; Physiology Division 145
- Litvak, S**  
Chile University School of Medicine, Santiago; Chair of Chemistry 146
- Llanos M, C**  
Facultad de Agronomia, Palmira, Colombia 326
- Lodha, K R**  
College of Veterinary and Animal Science, Bikaner, India 607
- Lolonis, N F**  
Rancho Santa Ana Botanic Garden, Calif. 147
- Lowry, W L**  
Texas Agricultural Experiment Station, College Station 152
- Macek, K J**  
Bureau of Sport Fisheries and Wildlife, Columbia, Mo.; Fish-Pesticide Research Lab. 790
- Macek, K J**  
Bureau of Sport Fisheries and Wildlife, Columbia, Mo.; Fish-Pesticide Research Lab. 929
- MacNamara, G M**  
Rutgers-State Univ., New Brunswick, N. J. 791
- Maier-Bode, H**  
Bonn Univ., West Germany; Pharmakologisches Inst. 662
- Maier-Bode, H**  
Rheinischen Friedrich-Wilhelms-Universitat; Pharmakologisches Institut, Bonn (West) 792
- Malone, B**  
U. S. Food and Drug Administration. division of; Pesticides, Wash., D. C. 1012
- Mannelli, G**  
Perugia Univ., Italy; Istituto di Merceologia 793
- Matthews, L J**  
Ruakura Agricultural Research Centre, Hamilton, New Zealand 626
- Mattson, A M**  
U.S. Public Health Service, Savannah; Communicable Disease Center 795
- Mayer, K**  
Biologische Bundesanstalt, Berlin-Dahlem, West Germany; Institut fur Zoologie 457
- McClelland, G A H**  
California University, Davis; Dept. of Entomology 257
- McDonald, I C C**  
Virginia Polytechnic Inst., Blacksburg 159
- McEwen, F L**  
U. S. Public Health Service; National Institute Of Allergy And Infectious Diseases 258
- McGill, A E J**  
Shell Research Ltd., Sittingbourne, Kent, England; Tunstall Lab. 796
- McLauchlan, G**  
New Zealand Journal of Agriculture, Wellington 462
- McLean, L A**  
Velsicol Chemical Corp. 316
- McLeod, D G R**  
Canada Dept. of Agriculture, London, Ontario; Research Inst. 259
- Meeks, R L**  
Ohio Cooperative Wildlife Research Unit, Columbus 663
- Mello, E J R**  
Instituto Biologico, Sao Paulo, Brazil 161
- Menzel, D B**  
Dept. Of The Army; Office Of Surgeon-General 162
- Metcalf, R L**  
California. university; Dept. of Entomology, Riverside 932
- Millar, L A**  
Australia. commonwealth Scientific and Industrial Research; Organization; Division of Entomology, Canberra 166
- Miller, D D**  
New Mexico State University; Dairy Department 805
- Millers, Imants**  
Huron-manistee National Forests; Cadillac, Michigan 467
- Mitchell, E R**  
Coastal Plain Experiment Station, Tifton, Ga. 473
- Modell, W**  
Cornell Univ. Medical Coll., New York, N. Y. 288
- Moffitt, R A**  
Carnation Company, Van Nuys, California; Research Laboratories 816
- Moffitt, R A**  
Carnation Company, Van Nuys, California; Research Laboratories 817
- Montoure, J E**  
University of Idaho Moscow, Idaho; Dept. of Dairy Science 620
- Mookherjee, P B**  
Indian Agricultural Research Inst., New Delhi; Div. of Entomology 628
- Moore, N W**  
Monks Wood Experimental Station, Huntingdon, England 664
- Moriarty, F**  
The Nature Conservancy, Huntingdon; Monks Wood Experimental Station 818
- Mosier, A R**  
Agricultural Research Service, Fort Collins, Colorado; Soil and Water Conservation Research Div. 1016
- Moubry, R J**  
Wisconsin Dept. of Agriculture, Madison; General Lab. Div. 819
- Mouchet, J**  
Office de la Recherche Scientifique et Technique; Outre-Mer, Bondy, France; Services Scientifiques Centraux 168
- Mouchet, J**  
Office de la Recherche Scientifique et Technique; Outre-Mer, Bondy, France; Centre Scientifique et Technique 289
- Mouchet, J**  
Office de la Recherche Scientifique et Technique; Outre-Mer, Bondy France; Centre Scientifique et Technique 290
- Muhammad, S V**  
Department of Agriculture, Madras, India 475
- Mulhern, T D**  
California Dept. of Public Health; Bureau of Vector Control 170
- Mulla, M S**  
Coachella Valley Mosquito Abatement; Coachella Valley Mosquito Abatement District, Riverside Cty. 292
- Mulla, M S**  
Coachella Valley Mosquito Abatement District, Riverside Cty. 612
- Mulla, M S**  
Coachella Valley Mosquito Abatement District, Calif. 613
- Muns, R P**  
Wallace And Tiernan, Monrovia, Calif. 822
- Narahashi, T**  
Duke Univ., Durham, N. C.; Dept. of Physiology and Pharmacology 934
- Narahashi, T**  
Duke Univ. Medical Center, Durham, N. C.; Dept. of Physiology and Pharmacology 935
- Nasu, S**  
National Institute of Agricultural Sciences 477
- Newland, L W**  
Texas Christian Univ., Fort Worth; Dept. of Biology 1017
- Nohle, L W**  
U. S. agricultural Research Service.; Entomology Research Division 479
- Oatman, E R**  
Florica Citrus Experiment Station, Lake Alfred 15
- Oatman, E R**  
University Of California, Riverside; Dept. Of Biological Control 16
- Oberle, G D**  
Virginia Polytechnic Inst., Blackshurg 480
- Odinets, A A**  
Ministerstva Zdravookhraneniya SSSR, Moscow; Tsentralyi Nauchno-Issledovatel'skii Desinfektsionnyi Institut 173
- Odum, W E**  
Miami Univ., Fla.; Inst. of Marine Sciences 823
- Odum, W E**  
Miami Univ., Fla.; Inst. of Marine Sciences 824

- Ottoboni, A**  
California State Dept. of Public Health, Berkeley  
94704 591
- Ottoboni, A**  
California State Dept. of Public Health, Berkeley  
94704 592
- Ozer, M**  
Ankara Univ., Turkey; Dept. Of Plant Protection  
Kursusu 482
- Ozkazanc, A N**  
Ankara Univ., Turkey; Farmakoloji ve Toksikoloji  
Kursusu 174
- Pande, Y D**  
College of Agriculture, Jobner, India 483
- Paradis, R O**  
Canada Dept. of Agriculture, Saint-Jean, Quebec;  
Research Station 484
- Parish, R H**  
Tropical Pesticides Research Institute, Arusha,  
Tanzania 487
- Parker, K D**  
Shell Development Company, Modesto, Calif.;  
Agricultural Research Laboratory 827
- Pass, B C**  
University Of Kentucky 175
- Passlow, T**  
Department of Primary Industries, Queensland,  
Australia 488
- Pate, T L**  
Mississippi Agricultural Experiment Station, State  
College; Entomology Dept. 176
- Peakall, D B**  
Upstate Medical Center, N. Y. 583
- Peoples, S A**  
California University, Davis; Dept. of Physiological  
Science 937
- Pfadt, R E**  
Shell Chemical Corporation 564
- Pillai, K K**  
University Of Delhi, India; Dept. Of Zoology 181
- Pivar, G**  
Agricultural Coll., Osijek, Yugoslavia 570
- Plapp, F W**  
U. S. Dept. of Agriculture, Corvallis, Ore.; Agricul-  
tural Research Service; Entomology Research Divi-  
sion 182
- Platt, D S**  
I-C.I. Pharmaceuticals Division, Cheshire, Eng-  
land.; Research Dept. 938
- Porter, L K**  
Agricultural Research Service, Fort Collins, Colo.  
80521; Soil and Water Conservation Research Div. 828
- Pristavko, W P**  
Ukrainian Research Plant Protection Inst., Kiev,  
USSR 184
- Privora, M**  
Czechoslovakia 293
- Rachesky, S**  
Illinois Univ., Chicago; Pesticides Cooperative Ex-  
tension Service 630
- Radomski, J L**  
University of Miami, Coral Gables; School of  
Medicine 830
- Rahim, A**  
Pakistan Inst. of Cotton Research and Technology,  
Karachi 621
- Rahman, S J**  
India. national Institute of Communicable Dis-  
eases; Southern India Branch, Coonoor 187
- Rajasekharan, M R**  
Andhra Pradesh Agricultural Univ., Hyderabad,  
India 329
- Rajasekharan, M R**  
Andhra Pradesh Agricultural Univ., Hyderabad,  
India 495
- Ramade, F**  
Paris Univ.; Faculty of Science 189
- Rao, C S**  
Andhra Pradesh Agricultural Univ., Bapatla, India 496
- Rao, Y S**  
Central Rice Research Institute 497
- Raybould, J N**  
East Africa Institute of Malaria and Vector Borne  
Diseases 941
- Reddy, G**  
Regional Research Laboratory, Hyderabad, India 190
- Reichmuth, W**  
Biologische Bundesanstalt fur Land-und Forst-  
wirtschaft.; Berlin-Dahlem, West Germany; Institut  
Fur Zoologie 192
- Reyes Q, J A**  
Facultad de Agronomia, Palmira, Columbia 500
- Ridgway, R L**  
Shell Chemical Co., N. Y. 501
- Riekerk, H**  
University of Washington, Seattle; College of  
Forestry 666
- Risebrough, R W**  
California Univ., Berkeley; Inst. of Marine  
Resources 667
- Risebrough, R W**  
California University, Berkeley; Institute of Marine  
Resources 942
- Rivard, I**  
Canada Ministry of Agriculture, Quebec; Research  
Station 503
- Rivera, C T**  
Guinobatan Experiment Station, Philippines 194
- Robertson, E A**  
U.S. Public Health Service, Dauphin Island,  
Alabama; Gulf Coast Shellfish Sanitation Research  
Center 833
- Robertson, E A**  
U.S. Public Health Service, Dauphin Island,  
Alabama; Gulf Coast Shellfish Sanitation Research  
Center 834
- Robinson, J**  
Shell Research Ltd.; Tunstall Laboratory, Sitting-  
bourne, Kent 943
- Rolofson, G L**  
Virginia Polytechnic Institute, Blacksburg; Depart-  
ment of Entomology 945
- Rose, H A**  
Cornell University; Dept. of Entomology, Ithaca,  
N. Y. 196
- Rumsey, T S**  
Agricultural Research Service, Beltsville, Md.;  
Animal Husbandry Research Div. 835
- Russell, P F**  
Rockefeller Foundation, New York, N. Y. 294
- Sanchez, F F**  
University Of The Philippines; College Of Agricul-  
ture And Central Experiment Station; Geigy  
Chemical Corp.; University Of California, River-  
side 948
- Saunders, G W**  
Department of Primary Industries, Oucensland,  
Australia 509
- Sautet, J**  
Marseille Univ., France; Faculte de Medecine 198
- Saxen, B N**  
Field Laboratory, Tezpur, Assam, India 573
- Saxena, D K**  
Jawaharlal Nehru Krishi Vishwa Vidyalaya; Dept.  
of Entomology, Jabalpur 510
- Schafer, M L**  
U.S. Public Health Service, Cincinnati; Robert A.  
Taft Sanitary Engineering Center; Milk and Food  
Research 838
- Schafer, M L**  
U.S. Public Health Service, Cincinnati; Robert A.  
Taft Sanitary Engineering Center; Milk and Food  
Research 839
- Schafer, M L**  
U.S. Public Health Service, Cincinnati; Robert A.  
Taft Sanitary Engineering Center; Milk and Food  
Research 949
- Schmidt, M L**  
Naval Medical Research Unit No. 3 Field Facility,  
APO.; New York 09319 201
- Seal, W L**  
Agricultural Research Service, Hyattsville, Md.;  
Plant Pest Control Div. 840
- Service, M W**  
Nature Conservancy, Dorset, England; Furzebrook  
Research Station 295
- Shafik, M T**  
Public Health Service, Savannah, Georgia; Na-  
tional Communicable Disease Center; Technical  
Development Laboratories 1043
- Shalaby, A M**  
Alexandria Univ., Egypt; Dept. of Zoology 296
- Shaw, R D**  
The Cooper Technical Bureau, Berkhamsted,  
Herts, England 203
- Shinkle, M**  
Michigan State Univ., East Lansing; Cooperative  
Extension Service 204
- Shrager, P G**  
Duke University; Dept. of Physiology and Phar-  
macology, Durham, N. C. 205
- Shrivastava, S K**  
Central Public Health Engineering Research Inst.,  
Delhi.; India 1022
- Silver, G T**  
Canada Dept. of Forestry and Rural Development,  
Victoria; Forest Research Laboratory 206
- Singh, Harcharan**  
Directorate of Plant Protection, Quarantine and  
Storage 514
- Singh, J**  
Canada Dept. of Agriculture, Ottawa, Ontario;  
Plant Products Div. 842
- Sladen, W J L**  
John Hopkins University, Baltimore; Department  
of Pathology 843
- Sladen, W J L**  
John Hopkins University, Baltimore; Department  
of Pathology 844



# BIOGRAPHICAL INDEX

## Smith, A

- Smith, A**  
Tropical Pesticides Research Institute, Arusha, Tanzania 3
- Smith, K J**  
National Cottonseed Products Association, Inc., Memphis.; Tenn. 845
- Smith, V K**  
Forest Service, Gulfport, Miss., 39501; Wood Products Insect Lab. 846
- Soliman, S A**  
Ain-shams University, Cairo, Egypt; Faculty Of Science; Entomology Dept. 211
- Soliman, S A**  
Ain Shams University, Cairo; Faculty of Science; Entomology Department 212
- Spencer, D A**  
National Agricultural Chemicals Association, Wash., D. C. 847
- Spielman, A**  
Harvard School Of Public Health; Dept. Of Public Tropical Health 213
- Sprague, J B**  
Fisheries Research Board of Canada, St. Andrews, New Brunsw; Biological Station 214
- Srivastava, B P**  
College of Agriculture, Jobner, India 517
- Srivastava, C P**  
Defence Research Laboratories (materials), Kanpur, India 215
- Srivastava, S C**  
London School of Hygiene and Tropical Medicine; Department of Entomology 217
- Srivastava, V K**  
College of Agriculture, Jobner (Rajasthan), India 518
- Staples, R**  
Nebraska University, Lincoln; Dept. of Entomology 519
- Steed, J N**  
Department of Agriculture, Adelaide, Australia 520
- Stern, V M**  
U. S. Public Health Service; National Institutes Of Health; National Institute Of Allergy And Infectious Diseases 521
- Sternburg, J**  
Rockefeller Foundation 950
- Sullivan, R L**  
Dept. Of The Army; Office Of The Surgeon General; Research And Development Division 264
- Svoboda, J**  
Agriculture Univ., Brno, Czechoslovakia; Dept. of Food Hygiene and Technology 854
- Sy, M**  
Gurlittstrasse 73, Dusseldorf, West Germany 1046
- Tadano, T**  
Illinois University, Urbana; Dept. of Zoology 265
- Taher, M**  
Minnesota University 219
- Tahori, A S**  
Roosevelt University, Chicago 221
- Tarry, D W**  
Ministry of Agriculture, Weybridge; Central Veterinary Library 222
- Taylor, R G**  
Texas A and M Univ., College Station; Dept. of Plant Sciences 858

- Teasley, J I**  
U.S. Public Health Service, Atlanta; Division Of Water Supply and Pollution Control; Pesticides Pollution Studies 668
- Teasley, J I**  
U.S. Department of the Interior, Athens, Georgia; Southeast Water Laboratory 669
- Teasley, J I**  
U.S. Public Health Service, Atlanta; Division Of Water Supply and Pollution Control; Pesticides Pollution Studies 670
- Teasley, J I**  
U.S. Department of the Interior, Athens, Georgia; Southeast Water Laboratory 671
- Telenga, N A**  
Ukrainian Inst. of Plant Protection, Kiev, USSR 223
- Terriere, L C**  
Oregon. state University; Dept. of Entomology 224
- Terriere, L C**  
Oregon State University, Corvallis 672
- Terriere, L C**  
Oregon State University; Departments of Agricultural Chemistry and Entomology 673
- Thompson, F B**  
Department of Agriculture, Wellington, New Zealand 615
- Tostanovskaya, A A**  
Kievskogo Nauchno-issledovatel'skogo Instituta Gigieny; Pitaniya, USSR; Toksikologicheskaya Laboratoriya 954
- Touzeau, J**  
Protection des Vegetaux, Bordeaux, France 528
- Tsao, C H**  
University Of Georgia, Athens 956
- Tufano, A**  
The Tobacco Reporter, Cincinnati, Ohio 860
- Tullio, V**  
Osservatorio per le Malattie delle Piante, Modena, Italy 226
- Ungureanu, L**  
Institute of Hygiene - Jasi-romania, 1026
- Upshall, D G**  
Agricultural Research Council 977
- Ural, I**  
Zirai Mucadele Enstitusu Subtropical Bitkiler Lab.; Samsun, Turkey 533
- Uspensky, I V**  
Institute of Medical Parasitology and Tropical Medicine.; Moscow, USSR 301
- Vale, G**  
Rhodesia. dept. of Veterinary Services; Branch of Tsetse and Trypanosomiasis Control 617
- Van Den Bosch, R**  
California Univ., Albany; Div. of Biological Control 227
- Vasvary, L M**  
Rutgers Univ., New Brunswick, N. J.; Cooperative Extension Service 228
- Villar, E del**  
Chile University, Santiago; School of Medicine 229
- Vittal, S M**  
Regional Research Station, Tindivanam, India 534
- Voerman, S**  
Netherlands. laboratory for Research on Insecticides.; Wageningen 1027

- Walker, P T**  
Colonial Pesticides Research Unit, Arusha, Tanganyika 230
- Wallace, A T**  
Florida Agricultural Experiment Stations, Gainesville 319
- Waller, G D**  
Department of Agriculture, Tucson, Ariz.; Bee Research Lab. 231
- Wang, W G**  
Wisconsin Univ., Madison 1028
- Ware, G W**  
Arizona University, Tucson; Dept. of Entomology 537
- Ware, G W**  
Arizona. university; Dept. of Entomology 675
- Ware, G W**  
Arizona. university; Dept. of Entomology 1029
- Wasserburger, H J**  
Postfach 47, 5308 Rheinbach/Deutsche Bundesrepublik 1030
- Wassermann, M**  
Hebrew Univ., Jerusalem, Israel; Dept. of Occupational Health 866
- Webster, E J**  
Ohio State University, Columbus; Dept. of Zoology and Entomology 232
- Wedemeyer, G**  
Sand Point Naval Air Station, Seattle Wa.; Western Fish Disease Lab. 958
- Weidner, H**  
Zoologisches Staatsinst. und Zoologisches Museum, Hamburg.; West Germany. 236
- Weis, C D**  
Forschungslaboratorien J. R. Geigy AG, Basel, Switzerland 1032
- Wershaw, R L**  
Geological Survey, Denver, Col. 676
- Wessel, J R**  
U. S. food and Drug Administration, Cincinnati 869
- White, J H**  
National Agricultural Advisory Service, Newcastle-upon Tyne 541
- White, S A**  
Maryland University, College Park; Dept. of Entomology 302
- Whiting, F M**  
Arizona University, Tucson; Dept. of Dairy Science 959
- William, A**  
Faculte d'Agronomie, Gembloux, Belgium; Laboratoire de Biologie Vegetale 870
- William, A**  
Gembloux Univ., Belgium; Lab. de Biologie Vegetale 871
- Williams, I H**  
Canada Dept. of Agriculture, 6660 Northwest Marine Drive.; Vancouver; Research Station 677
- Witt, J M**  
University of Arizona; Department of Entomology and Dairy Science 874
- Witt, J M**  
University of Arizona, Tucson 960
- Wolfenbarger, D A**  
Agricultural Research Service, Brownsville, Tex.; Entomology Research Div. 961
- Wood, R J**  
Universita, Pavia, Italy; Instituto Di Zoologia 239

# BIOGRAPHICAL INDEX

Zimmerman, B

<b>Wood, R J</b> Manchester Univ., England; Dept. of Zoology		Biological Sciences		Tokyo Univ., Japan; Dept. of Parasitology	
	268		877		242
<b>Woodwell, G M</b> Brookhaven National Laboratory, Upton, New York; Biology Dept.		<b>Wurster, C F</b> New York State Univ., Stony Brook; Dept. of Biological Sciences		<b>Zaghloul, T M A</b> Research Institute of Medical Entomology, Dokki, Cairo,; Egypt, United Arab Republic	
	678		878		303
<b>Woolley, D E</b> California Univ., Davis 95616; Dept. of Animal Physiology		<b>Yasuno, M</b> Tokyo Univ., Japan; Dept. of Parasitology		<b>Zangheri, S</b> Padova Univ., Italy; Istituto di Entomologia Agraria	
	596		240		978
<b>Wurster, C F</b> New York State University, Stony Brook; Dept. of		<b>Yasuno, M</b> Tokyo Univ., Japan; Dept. of Parasitology		<b>Zimmerman, B</b> Fordham University, New York	
			241		304





# AUTHOR INDEX

Abedi, Z H	26	150, 151, 152, 986	Burden, G S	61	Concienne, E J	452
243		Bergis, I	Burdick, G E	708	Conney, A H	928
Abelson, P H	688	Bergmannova, E	Burke, J	709	Connola, D P	377
Abou-Donia, M B	880	Berlin, J	1034		378, 379	
983		Beroza, M	Burke, J A	700	Cook, J W	806
Abraham, E V	339	Berry, I L	1012		Cook, R W	742
Acree Jr, F	27	Bertran, M	Busch, K A	838	745, 779, 780	
984, 988		Bertuzzi, P F	839		Copeland, F	784
Adair, H M	340	Bettini, S	Busvine, J R	62	Corbett, M K	27
Adams, C H	28	Bevan, D	245		Corley, C	836
Adiguzel, N	136	Bevenue, A	Butcher, J W	370	Cornwell, G W	868
Adkisson, P L	29	1006	371		Corrigan, J J	897
Adkissow, P L	59	Bhatia, L J	Butler, P A	639	Cote, J C	692
Adrianov, S I	597	Bickley, W E	Cahill, W P	675	Coulson, D M	718
Agee, H R	473	Bigger, J W	Campbell-Smith, L	360	992	
Agosin, M	30	Bindra, O S	Campbell, J E	838	Coutts, H H	969
31, 32, 33, 124, 146		Bishop, J L	839, 949		Covington, B M	472
Ahrens, J F	691	Bissell, T L	Campbell, R E	522	Cowan Jr, C B	380
Al-Azawi, A F	341	Bitman, J	Cannon, M S	577	381, 387, 485, 486	
Al-Hachim, G M	881	Blackman, G G	598		Cowan, C B	501
Alabaster, J S	882	Blais, J R	Cantwell, G E	63	Cox, J A	382
Alary, J G	692	Blakeslee, T E	Capek, M	64	Cox, R	879
Aldigheri, J	198	Blanchard, R A	Carden, P W	372	Cox, W S	668
Ali, A	621	Blasdale, P	Carlson, E C	373	669, 670, 671	
Almeida, P R	342	137	Carlson, R B	370	Coyne, J F	383
Anderson, J M	586	Blease, J A	Carter, L J	640	Coz, J	72
693, 825, 883, 884		Bleiberg, M J	641		273	
Anderson, L D	42	Blickenstaff, C C	Cassady, J	726	Craig, R	85
512, 513, 548, 565		Blinn, R C	Castello, G	655	Crooke, M	553
Anderson, W W	244	756, 1033	Caswell, R L	989	Cross, W H	28
Ando, K	37	Bobb, M L	Caswell, T J	599	Cucchi, N J A	394
Anglin, C	694	Boccacci, M	Catalpinar, A	136	Cuerrier, J P	719
Anonymus,	41	Bodor, J	Cathey, G W	366	720	
1055		Bogner, R L	Cavalcante, R D	342	Cueto, C	721
Applegate, H G	722	Bonner, F L	Cavanagh, L A	992	Culley, D D	722
858		Bontoyan, W R	Cavanaugh, L A	718	Cupalova, A	293
Arakawa, K Y	408	Boock, J O	Cavin, G E	87	Curtin, T J	73
Archer, T E	699	Borle, M N	840		Cutcomp, L K	211
Armstrong, J F	829	Bose, B N	Cecil, H C	576	Cutkomp, L K	138
Arnott, D A	344	629	Cefaratti, M	889	188	
Arthur, B W	739	Boswell, T O	Chaboussou, F	246	Dachauer, A C	993
Atallah, Y H	885	Bottger, G T	Chacko, C I	710	Dahm, P A	74
886		529	Chamberlain, W F	832	Dale, W E	723
Atkins Jr, E L	42	Boudreaux, H B	Champ, B R	966	724, 898, 916	
345, 549, 622		Bourke, T V	Chandrasekharan, N R	475	Damico, J N	1039
Attiah, H S	5	Bovard, K P	Chapman, A J	65	Danthanarayana, W	384
Atwal, A A	346	Bowen, W R	375, 461		Darlington, W A	454
Aubin, A E	887	Bowman, M C	Chattoraj, A N	66	Darrow, D J	75
Avens, A W	855	235, 267, 759, 963, 984, 988,	Chaudhuri, R P	618	Dater, J	899
Axtell, R C	888	1031, 1037	Chaudhury, R P	600	Datta, P R	775
Backstrom, J	634	Boyd, C E	601		900	
Bacon, O G	43	Boyd, E M	Chen, H H	504	Daum, R J	385
550		Boyd, J E	Chen, J H	783	725	
Bai, B S	347	Bradbury, F R	Chen, J T	775	Davey, P M	623
Baker, C	795	Bradford, A	802		Davich, T B	68
Bakke, A	348	Bradley Jr, J R	Cherrington, A D	711	143	
Balazs, K	637	Bradley, G H	Chesters, G	1017	David, B V	347
Banegas, A D	13	Bradley, L Jr.	Chikkerur, S K	376	David, J	619
Banham, F L	44	Braithwaite Jr, C H	Childs, D P	894	Davies, H	76
349		Brammanis, L	Chisholm, D	712	Davies, J B	274
Banks, C C	45	Braunberg, R C	Chisholm, R D	218	Davies, J E	726
Barkai, A	269	Bray, D F	951		Davis, C S	562
Barker, R J	46	368, 369, 427, 428, 955	Chow, C Y	272	Davis, F W	578
Barlow, C A	47	Brazzel, J R	Christie, A E	895	Davis, J N	386
Barmina, L N	301	54, 55, 135, 143, 191, 210, 340,	Christie, C J	760	Davis, J W	380
Barnes, A G	721	363, 364, 447, 563, 957	Chung, R A	713	381, 387, 486	
Barnes, M M	48	Brett, C H	896		Davis, R E	836
292		Brewerton, H V	Ciesliczak, A	714	Dawsey, L H	840
Barnes, W W	270	704, 705	Clahorn, H V	715	De Castro, E S	587
Barquet, A	726	Brodeur, M G	Clark, J C	209	De Pew, L J	787
Barrera, A	110	Brooks, R F	Clark, P H	67	De Vrges, J E	718
155		16	71		de Vries, J E	992
Barrette, J P	985	Brown, A W A	Clark, S J	990	Dean, H J	708
Barron, B A	596	56, 66, 115, 157, 181, 243, 249,	Cleveland, T C	68	Decker, G C	727
Barry, D	702	265, 303, 706, 1008	209		751	
Barry, H C	736	Brown, L C	Cleverley, B	991	Dee, M K	675
Bartlett, B R	350	964	Clower, D F	52	1029	
Bassabi, R	282	Brown, L R	Cocheo, B	993	Del Villar, E	77
Bauman, L F	552	Brown, R W	Cochran, D G	69	Dennis, E B	1
Baumgarner, P	702	896	70, 197		643, 740	
Bayona, I G	908	Brown, W H	Cockrill, B L	938	Derse, P H	202
Beall, M L	569	853, 874, 875, 959, 960	Coffin, D E	798	Desi, I	901
Beame, F D	299	Browne, L B	Coffin, L B	65	906	
Bean, J L	551	Browning, R M	Cole, D W	646	Dever, D A	609
Beard, R L	49	Bruinsma, J	Cole, H	702	DeVries, D M	728
Beard, W E	828	Buckner, A J	Cole, M M	67	827	
Beck, V	892	Buffam, P E	71		Dewan, R S	729
Beckman, H	768	Bull, D I	Collett, J N	760	Dewey, J F	385
1006		Bullock, H R	Collett, N	716	Dewey, M L	827
Bedford, H W	56	Burbutis, P P	Collie, J R	1045	DeWitt, J B	589
Bejer-Petersen, B	351	369, 803, 804	Collins, J A	967	Dharmaraju, E	329
Berger, R S	149	Burcar, P J	968		495	



# AUTHOR INDEX

## Dickason, E A

Dickason, E A	314	Fine, B C	217	Goldberg, M C	676	556, 557	
389		Fink, G B	881	Goldberg, R N	972	Hartenstein, R C	418
Dietrich, J A	309	Finlayson, D G	44	Gon, M	866	Hartmann, Hal	994
Dimick, K P	994	349		Goodhue, L D	92	Harvey, J M	762
Dimond, J B	730	Finley, L	492	Goodman, R N	972	Hatanaka, A	915
Dindal, D L	902	Finley, M T	907	Goodwin, T W	977	Hatchett, J H	421
Dinther, J. B. M. va	78	Fiori, B J	87	Goos, A	93	Hausermann, W	106
Ditman, L P	368	First, R S	1058	Gordienko, V E	954	Hawkins, W B	107
369, 427, 428, 429, 499, 803,		Fiserova-Bergerova, V	830	Gordon, H T	120	1002	
804		Flanigan, J F	193	Gorham, J G	11	Hayashi, A	108
Djime, D	99	Flynn, A D	277	Gould, G E	401	Hayashi, M	109
Do, F M	138	278		402, 555		Hayes Jr, W H	917
Doane, C C	903	Foley, F	822	Gould, H J	403	Hayes Jr, W J	898
Dobson, R C	602	851		Govindu, H C	19	916	
Dobzhansky, T	244	Foley, F B	522	Graham, C A	1057	Hayes, J D	924
Dolby, R M	731	Ford, H R	233	Graham, H M	150	Hayes, W J	829
Donegan, L	627	287		Granhall, I	806	Haynes, D L	466
Donley, D E	390	Forgash, A J	247	Grant, C D	249	Haynes, O L	371
Donoho Jr, C W	732	Forsythe, H Y	463	Gratwick, M	94	Hazeltine, W	419
Double, R C	995	464		Graves, J B	52	Heagy, A B	649
Douglas, W A	357	Foster, A E	970	95, 96, 741		Hecht, O	110
Dowden, P B	391	Foster, T S	580	Gray, I K	731	Heinen, W	788
Drebbel, M L	6	Fox, I	908	Grayson, J M	178	Helrich, K	841
Drees, H	310	Frans, R E	964	Greene, G L	404	Helson, G A H	420
733		Frantz, H E	909	Greenup, L R	405	Hemmerlein, A H	111
Driscoll, G R	259	Frear, D E H	8	406		Henderson, C F	421
Duffy, J R	26	9, 702		Greer, G L	755	Henderson, J L	763
734		Fredeen, F J H	1051	914		1038	
Duffy, T R	642	French, M C	910	Grenier, P	99	Henderson, R J	283
Dugal, L C	735	Fries, G F	576	Grice, H C	797	Hennessy, D J	993
Duggan, R E	736	749, 996		Griffin, J J	667	Hensley, S D	452
Dunstan, G H	424	Frinfrock, D C	407	Grigariak, A A	407	Herne, D C	491
652, 764		Frisa, C	708	Gross, A E	314	Herne, D H C	112
Duperrex, A	322	Frost, S	2	Grzenda, A R	647	422	
Duport, M	275	Fuchs, A F	1056	Guardia, E J	757	Hervey, G E R	459
Durham, W F	743	Fuhremann, T W	142	Guay, P	692	460	
829, 904		Fukuto, T R	622	Guenzi, W D	1016	Heskova, A	64
Dustan, G G	392	Fulton, R A	632	Gulati, K C	729	Hess, L	423
737		Furr, R E	489	Guneidy, A M	97	Hill, D W	650
Dustman, E H	738	560		Gunther, F A	622	Hill, S O	218
Dutky, S R	63	Fye, R E	397	756, 1019, 1033		951	
Dutt, G R	638	Gaddis, C H	218	Gupta, A P	299	Hills, K L	605
Eabry, H S	922	951		Gurland, J	74	Hilton, B D	915
Eads, C O	367	Gahan, J B	10	Guy, Y	282	Himel, C M	1003
Eaton, J L	79	88, 267		Gyrisco, G G	502	Hindin, E	424
80		Gaines, T B	898	765, 766		651, 652, 764	
Eaton, J LeR	81	911		Haas, G J	757	Hintz, S D	944
Ecobichon, D J	905	Gajan, R J	750	Haas, H G	935	Hiro Yoshi, T	251
Ecozed, S	3	997, 998		Haenggi, A	98	264	
Eddy, G W	141	Gakstatter, D H	912	Haenni, E O	1042	Hitchcock, S W	425
Eden, W G	739	Galbiati, F	279	Hafstad, G E	325	426	
Edmundson, W F	726	Galichet, P F	89	Hagyard, S B	959	Hodges, H K	1021
Edwards, C A	1	Gambrell, F L	324	Hale, R L	408	Hoffman, R A	715
643, 740		398		Hall, I M	408	Hoffman, W S	588
Edwards, H E	771	Gannon, N	751	Hamilton, D W	87	Hofmaster, R N	427
926		Gaprindashvili, N K	399	Hamad, S M	84	428, 429, 803, 804	
Egorova, G P	954	Garber, M J	292	393		Holanda, A A	342
Eidelman, M	1035	Gardner, L R	1061	Hammond, J W	1000	Holcomb, L C	577
El Bashier, S	82	Gariou, J	168	Hamon, J	72	598	
El Sayed, E I	741	Garner, C F	400	99, 250, 273, 289		Holswade, W	709
El-Tahtaoui, M M	83	Garnham, P C C	280	Hanbal, I	84	Hooper, G H S	113
Elamayem, M A	1043	Garruti, R S	321	393		114, 115, 116, 117, 118, 119,	
Eldefrawi, M E	84	Garvie, M B	609	Hanec, W	100	166, 195, 196, 284	
276, 393		Gast, R T	554	Hanker, I	523	Hopkins, A R	397
Elkins, E R	742	Gaston, L K	999	Hanna, R L	535	Horning, O	430
745, 779, 780		Gaur, A C	971	Hansen, A J	330	Hoskins, W M	30
Elliott, J W	743	Gee, R	592	Hansens, E J	604	162, 163	
Elson, P F	644	Genung, W G	404	625		Howland, A F	918
744		439		Hansson, E	634	Hoy, W	120
Empson, D W	643	George, J	624	Hardin, L J	758	Hoyer, R F	182
740		George, J L	752	Harding, J A	409	252, 261	
Enan, O	85	Georgiou, G P	90	410, 411, 543		Hoyt, S C	431
Epstein, A H	323	248, 603		Hardy, R J	101	432	
Erro, F	768	Gerold, J L	91	412		Huang, I-Lo	896
1006		Gessel, S P	646	Hare, W W	759	Huber, D A	602
Erwin, D C	645	Getchell, A S	730	1037		Huddleston, E W	765
Eshbaugh, E L	787	Getzin, L W	357	Harinasuta, C	240	766	
Espul, J C	394	Ghazal, A	913	241		Hudon, M	433
Falcon, L A	153	Gil, L	33	Harrell, E A	759	434, 435	
455		Gilbert, C C	747	1037		Huggett, R J	667
Farkas, I	901	Gillett, J W	753	Harries, F H	413	Hunt, L B	767
906		Gillham, E M	1047	Harris Jr, E D	102	919	
Farrow, R P	742	Gilmer, R M	324	414, 415, 416		Ide, F P	121
745, 779, 780		Glancey, B M	281	Harris, C C	103	122, 581	
Fellin, D G	7	287		Harris, C R	104	Ignoffo, C M	123
Fenemore, P G	395	Glessner, A S	1036	105, 259, 648		Ikeno, N	108
Fenili, G A	396	Goble, H W	311	Harris, E J	708	Iivicky, J	32
Ferguson, D E	579	Goddard, J L	754	Harris, S J	576	124	
746, 747, 891, 907		Goerlitz, D F	659	Harris, T H	1001	Ingram, W R	436
Ferguson, J I	591	660		Harrison, D L	716	437	
Fernandez, A T	748	Goetz, M E	592	760, 761		Iordanou, N T	125
Field, G	86	Goldberg, E D	667	Harrison, F P	417	Iren, Z	438

Isaacson, P A	678	Kimball, J R	742	Llanos M, C	326	Meeks, R L	663
920		745, 779, 780		Lloyd, E P	489	Meier, E	800
Israel, P	497	Kimura, T	1008	560		Meier, E J	801
Jackson, C	940	Kincade, R T	340	Locke, L N	589	Mello, E J R	161
Jackson, E R	811	Kindler, S D	519	Lockwood, J L	312	Mendel, J L	802
Jackson, W B	921	Kinzer, H G	421	313, 710		Menzel, D B	162
Jakob, W L	126	Kirk, J K	772	Lodha, K R	607	163, 942, 983	
Jamnback, H	285	Kirkby, W W	137	Loecher, F J	451	Menzer, R E	803
922		Kittams, W H	606	Lofgren, C S	281	804	
Janes, M J	439	Klein, A K	773	287		Menzie, C M	589
Janicek, G	619	774, 775, 776, 802, 867, 1009,		Lolonis, N F	147	843, 844	
Jefferies, D J	910	1039		Long, E	148	Merkel, M E	489
Jenkins, D H	653	Klinman, N	889	Long, W H	452	560	
Jensen, H P	820	Klostermeyer, E C	448	Lord, F T	453	Messenger, K	317
Jensen, S	654	Knipling, G D	632	Lowry, W L	149	Metcalf, R L	932
Jeppson, L R	558	Ko, W H	312	150, 151, 152, 238, 461, 561,		Michaeli, D	30
Joergensen, J	127	313, 657		956, 961		Michelbacher, A E	562
Johansen, C	440	Koch, R B	138	Lucchi, F	279	Micks, D W	164
441		Koehler, C S	12	Ludke, J L	907	165, 171	
Johansen, P H	887	Kohler, P H	944	Ludvik, G F	454	Milbrath, M	853
Johns, T	1004	Koone, H D	13	Lukefahr, M J	238	Miles, C I	700
Johnson, B T	972	Koons, J R	1010	Lyle, W E	819	Miles, J W	130
Johnson, C T	808	Kornblith, P	889	MacEachern, C R	712	253	
Johnson, G V	128	Kotarski, A	1011	Macek, K J	790	Millar, L A	166
Johnson, L Y	736	Kotula, A W	777	929		Miller, A C	154
Johnson, R D	2	Kovacs, Jr., M F	1040	Maceo, A	726	Miller, D D	805
Johnson, R F	923	Kring, J B	691	Macey, R I	205	Miller, E J	806
Johnson, V A	218	Kubat, J	854	Mack, G L	398	Miller, L L	1016
951		Kuhne, H	139	Mackensen, O	96	Miller, R L	463
Johnston, L	129	Kumar, V	255	MacNamara, G M	791	464	
Jones, E L	442	Kury, C R	778	Madsen, H F	153	Miller, S	167
Jones, F J S	582	La Red, F C	394	455		179	
Jones, G D	365	Laarman, J J	91	Maffi, M	99	Miller, W E	465
Jones, J C	302	Laben, R C	658	Maier-Bode, H	662	466	
Jones, J M	924	LaBrecque, G C	140	792		Millers, Imants	467
Jong, C	160	LaBreque, G C	88	Mallis, A	154	Mills, A	807
Jorg, J	1005	Lagace, C F	350	Malone, B	1012	Mills, E J	808
Jorge, J P N	321	Lamar, W L	659	Mancera, O	110	Mills, M L	2
Jourdheuil, P	352	660		155		Mills, P A	584
Kadunce, R E	730	Lamb, F C	742	Mann, H D	715	809, 810, 826, 852, 872	
Kagan, Iv. S	931	745, 779, 780		Mannelli, G	793	Minkin, J L	611
Kahn, A	621	Lamothe, P	692	Mansingh, A	216	Minyard, J P	811
Kaliser, L A	925	Lange, W H	407	Markarian, H	794	Miskimen, G W	318
Kalra, R L	130	Langlois, B E	781	Martens, P	870	470	
131, 253		782, 789, 848, 849, 967, 968		871		Miskus, R	30
Kamal, A L	973	Lanthier, J D	842	Martin, D J	942	85, 162, 163, 276, 812, 813,	
Kamps, L	700	Lapchenko, V S	954	Martin, W J	444	1014	
Kane, E A	749	Laster, M L	340	Martinek, W	714	Mistric, W J	471
Kane, F	794	Lattin, J D	389	Masutti, L	978	472	
Kangas, E	443	Lau, S C	827	Matchett, R E	2	Mitchell, E R	471
Kanitz, S	655	Laug, E P	775	Mathis, W	156	473	
Kantack, B H	519	Laurence, G A	100	Matsumura, F	109	Mitchell, L C	1015
794		Law, L M	660	Matthews, L J	626	1041	
Kantack, E J	444	Lawler, P D	974	Matthysse, J G	608	Moats, W A	777
Kawada, A	445	975		Mattson, A M	721	814	
Kawai, M	742	Leach, C M	314	795		Moddes, R	815
Kawano, Y	768	Ledbetter, R J	559	Maxwell, C W	456	Modell, W	288
1006		Ledford, R A	783	May, D S	424	Moffitt, H R	48
Kawar, N S	8	Lee, G B	1017	652, 764		Moffitt, R A	816
Kearns, C W	144	Lee, I	74	Mayer, K	457	817	
145, 897		Legner, E F	14	Maynard, D E	505	Montoure, J E	620
Keenleyside, M H A	132	15, 16		506		Montoya, E L	123
769		Legowski, T J	403	McAllan, J W	157	Mookherjee, P B	628
Keiding, J	133	Lehner, P N	784	McAllister, S H	1013	629	
Keith, J A	719	Leigh, T F	449	McCarty, P L	650	Moore Jr, R F	933
720		Leonard, D F	450	McClelland, G A H	257	Moore, N W	664
Keller, J C	63	Lerch, D	315	McComb, C	158	Moorefield, H H	524
Kelsey, J M	134	Lestschenko, P D	927	McComb, C W	458	525	
Kelsheimer, E G	404	Letelier, M E	33	McCormick, W J	452	Morello, A	31
Kemeny, T	901	Levin, W	928	McDonald, I C C	159	Moretini, A	474
906		Lewis, D T	785	McDowell, R E	584	Moriarty, F	818
Kerdipibule, V	240	Lewis, L F	141	872		Morris, Jr, W W	1042
Kerdipibule, Y	242	Li, C F	786	McEwen, F L	256	Morrison, F O	255
Kerr, R W	57	Liang, T T	142	258, 459, 460		Mosier, A R	1016
Kerr, T W	446	Lichtenstein, E P	142	McFarlane, J A	627	Mosinska, K	1011
Kerr, W P	135	661, 787		McGarr, R L	150	Mosnaim, D	77
447		Lin, Y D	713	461		229	
Kershaw, W E	2	Lincoln, C	366	McGill, A E J	796	Mostert, G C	789
286		964		McGrath, H J W	703	848, 849	
Kerswill, C J	770	Lindquist, D A	143	705		Moubry, R J	819
771, 926		363, 364, 501		McGregor, T	193	Moubry, R P	820
Kerswill, G J	656	Link, J	750	McKiel, J A	609	Mouchet, J	72
Kerwin, J A	589	Link, J D	776	McKinley, D J	56	168, 250, 289, 290	
Khalsa, H G	573	Linskens, H F	788	McKinley, W P	694	Mount, D A	365
Khan, M A Q	254	Lipke, H	144	797, 798, 799, 930		Mount, G A	169
Khan, N H	186	145		McKully, K A	798	287	
187		Lisk, D J	765	799		Mueller, M	665
Khare, B P	518	766		McLauchlan, G	462	Muhammad, S V	475
Kido, H	1007	Liska, B J	594	McLean, L A	316	Muldoon, P J	620
Kilgemagi, U	672	595, 781, 782, 789, 848, 849		McLeod, D G R	259	Mulhern, T D	170
Kiimagi, U	673	Litvak, S	32	McMullen, R D	160	Mulla, M S	291
Kilic, A U	136	146		Medved', L I	931		



# AUTHOR INDEX

## Muns, R P

292, 476, 571, 603, 612, 613, 821	167, 179, 253	Risebrough, R W	667	Shrager, P G	205
Muns, R P	822	942		Shrivastava, S K	1022
Murphy, G G	907	Rivard, I	503	Shuman, H	1044
Murthy, M R V	165	Rivera, C T	194	1045	
171		Roberts, R H	832	Siewierski, M	841
Myrdal, G R	819	Robertson, E A	833	Sillibourne, J M	94
820		834		859	
Nagasawa, S	30	Robertson, I A D	487	Silva-Fernandes, A M	859
Naidu, M B	185	Robertson, O T	150	Silver, G T	206
190		375		Simco, J S	207
Naithani, R C	618	Robinson, B	976	Simmons, P	631
Narahashi, T	934	Robinson, J	796	Singh, Harcharan	514
935		943		Singh, I P	593
Nash, R G	569	Robison, Wm H	1020	Singh, J	842
Nasu, S	477	Rodriguez, J G	504	Singh, K	346
Natalizi, G	50	505, 506		Sirlez, H	574
Nelson, M J	900	Rodriguez, J L	614	Sivasubramanian, P	475
Nettles Jr, W C	885	Rogers, L J	974	Skea, J	708
Neunes, H W	172	975		Sladen, W J L	843
Newland, L W	1017	Rogoff, W M	944	844	
Newsom, L D	444	Rolofson, G L	945	Sleesman, J P	787
452, 886		Rose, H A	195	Sloane, L W	481
Nicholson, H P	647	196		936	
Niemeyer, K H	590	Rosen, P	269	Smith Jr, T	208
Noble, L W	375	Rosicky, J	1058	Smith Jr, W T	504
479		Ross, M H	69	505, 506	
Norkus, L W	1018	70, 197		Smith, A	3
Novitskaya, T N	399	Roussel, J B	95	Smith, E H	515
O'brien, R D	915	Rowlands, D G	946	Smith, F F	128
O'Connell, D	734	Rudder, J D	365	Smith, G L	209
O'Neill, D K	572	Rumsey, T S	835	375	
Oatman, E R	14	836		Smith, K J	845
15, 16		Rupes, V	293	Smith, L M	879
Oberle, G D	480	Russell, P F	294	Smith, S M	162
Odinets, A A	173	Russo, G	507	163	
Odum, W E	823	Ruzicka, J H A	857	Smith, V K	846
824		Sacho, R J	919	Smithson, T W	257
Ogilvie, D M	825	Sacho, R L	767	Snow, J W	210
Oktyabrskaya, T A	173	Salas, J A	330	Sobel, Z	221
Olcott, H S	942	Saliternik, Z	269	Sokal, R R	262
Oliver, A D	481	Samuel, B L	1021	263	
492, 936		San Antonio, J P	837	Soliman, S A	211
Olney, C E	446	Sanchez, E	947	212	
Onley, J H	826	Sanchez, F F	948	Soller, M	221
Oppenoorth, F J	260	Saplala, V L	508	Solomon, M G	993
Orlando, A	321	Saroja, R	534	Soper, F L	298
Orozco, H I	908	Sarten, C T	758	Spaie, I	516
Oshima, C	244	Sarup, P	18	Sparks, A N	359
Ott, D E	756	Saschenbrecker, P W	905	Spencer, D A	847
1019		Saunders, G W	509	Sperra, P R	1023
Ottoboni, A	591	Sautet, J	198	Spielman, A	213
592		Savary, G	930	Spillane, J T	795
Ouedraogo, C S	99	Saxen, B N	573	Spiteller-Friedmann, J	1005
Ouye, M T	151	Saxena, D K	510	Spiteller, G	1005
Ozer, M	482	Scaramelli, N	31	Splitstoesser, C M	256
Ozkazanc, A N	174	33		258	
Padmanabhan, M D	339	Schaefer, G A	511	Sprague, J B	214
Page, K W	203	Schaffer, M L	838	Spynu, E I	931
Page, O T	711	839, 949		Srinivasalu, N	475
Paim, U	711	Schechter, M S	199	Srivastava, B P	517
755, 914		Schmidt, C H	200	Srivastava, C P	215
Pande, Y D	483	234, 235, 1031		Srivastava, P D	216
Panisset, J C	692	Schmidt, J R	201	Srivastava, S C	217
Paradis, R O	484	Schmidt, M L	201	Srivastava, V K	518
Pareek, R P	971	Schmolesky, G E	202	Stadelman, W J	594
Parencia Jr, C R	68	Schoof, H F	156	595, 789, 848, 849	
381, 386, 387, 485		277, 278		Stafford, E M	1007
Parencia, C R	486	Schroeder Jr, E F	1059	Standen, H	51
Parencia, Jr, C R	380	Schulz, K R	142	Stanley, R L	592
Parish, R H	331	661		Staples, R	519
487, 969		Schuster, M F	543	Starks, K J	545
Parker, K D	827	Scott, H G	611	State of Maine Fores	4
Parsons, G M	524	Scott, W P	68	Steed, J N	520
525		Seal, W L	840	Steinhauer, A L	194
Pass, B C	175	Sedivy, J	523	Stemp, A R	594
Passlow, T	488	Service, M W	295	595, 781, 782, 848, 849	
Pate, T L	176	Shafik, M T	1043	Stern, V M	521
563		Shalaby, A M	296	Sternburg, J	80
Patric, J H	647	297		107, 950, 1002	
Pavlovsky, O	244	Shanks, V	761	Sternburg, J G	79
Payfer, R	985	Shaw, R D	203	Stevenson, A B	392
Peakall, D B	583	Shaw, W M	976	Stickel, L F	738
Pearce, G W	795	Sheets, L W	531	Stiles, A R	850
Peck, C K	177	532, 538, 567		Stoffers, A L	788
Penick, A E	743	Shepherd, S M	835	Stone, E	719
Peoples, S A	879	Sherman, M	37	720	
937		948		Stone, M W	522
Pepper, J H	606	Shinkle, M	204	565, 822, 851	
Perkins Jr, B D	178	Shipe, W F	783	Storherr, R W	852
Perry, A S	130	Shivashankara Shastr	19	Strickholm, A	205
		Shorey, H H	408	Stull, J W	707
		512, 513		853, 959	

# AUTHOR INDEX

Zwick, R W

Sullivan, L M	853	Touhey, J G	955	Ware, G W	537	William, A	870
Sullivan, R L	264	Touzeau, J	528	675, 1029		871	
Sullivan, W N	199	Treece, R E	225	Wasserburger, H J	1030	Williams, I H	677
218, 632, 951		Tsao, C H	529	Wassermann, D	866	Williams, S	584
Summers, D D B	582	561, 956		Wassermann, M	866	872, 873	
Sun, Y P	952	Tufano, A	860	Watanabe, T	244	Williams, T R	2
Sutcher, V	276	Tullio, V	226	Watters, F L	125	Willson, B H	237
1014		Turnipseed, G F	530	Watts, J D	775	Wilson, H G	88
Sutherland, D J	299	Tuttle, D M	531	Watts, J O	774	140, 267	
Suzuki, I	1064	532, 567		867, 1009, 1039		Wilson, J W	568
Svatkov, V I	954	Tyd, R M	833	Weatherholtz, W M	868	Wilson, L F	467
Svatkov, W I	927	Tyo, R M	834	Webb, A B	270	Wingard, S A	480
Svec, H J	104	Ullberg, S	634	Webb, F E	566	Wingate, D B	877
Svoboda, J	854	Ungureanu, E M	1026	Webb, R E	868	Witt, J M	707
Swaren, U	953	Ungureanu, L	1026	Webley, D J	331	853, 874, 875, 960	
Sweet, R C	379	Upshall, D G	977	Webster, C	930	Wolfenbarger, D A	60
Sy, M	1046	Ural, I	533	Webster, E J	232	238, 542, 543, 961, 962	
Tadano, T	265	Uspensky, I V	301	Wedemeyer, G	958	Wolfenbarger, D O	544
Taft, H M	473	Vale, G	617	Weidhaas, D E	200	Wong, N	642
933		Van Den Bosch, R	227	233, 234, 235		Wood, R J	239
Taher, M	219	521		Weidhaus, D E	1031	268	
Tahori, A S	220	VanDenburgh, R	368	Weidner, H	236	Woodbridge, C G	973
221		369		Weis, C D	1032	Woodford, M	876
Taimr, L	523	Vasil Ev, V P	865	Welch, R M	928	Woodwell, G M	678
Tarrago-Litvak, L	146	Vasvary, L M	228	Wellso, S G	29	823, 824	
Tarry, D W	222	Villar, E del	229	Wene, G P	531	Woolley, D E	596
Taschenberg, E F	524	Vinson, S B	176	532, 538, 567		Workman, R B	404
525, 855		957		Wershaw, R L	676	Wurster, C F	678
Tashiro, H	398	Vittal, S M	534	Wertheim, E	539	823, 824, 877, 878	
Tatton, J O	857	Voerman, S	1027	Wesley, R L	594	Yasuno, M	240
Tauber, M	12	Waddle, B A	964	595		241, 242	
Taylor, R G	858	Walker Jr, J K	535	Wessel, J R	869	Yeomans, A H	199
Teasley, J I	647	Walker, K C	743	Wesselman, H J	1010	Young, J R	21
668, 669, 670, 671		Walker, P T	230	Westigard, P H	672	499, 545, 963	
Telenga, N A	223	536		673		Young, R G	986
Terriere, L C	224	Walker, R L	397	Wheatley, P E	540	Young, R W	868
254, 672, 673		Wallace, A T	319	White, J H	541	Zaghloul, T M A	303
Tew, R P	94	Waller, G D	231	White, S A	302	Zangheri, S	978
859		Walter, E V	568	Whiting, F M	707	Zellermayer, L	866
Thomas Jr, A M	1024	Walther, B	718	874, 959, 960		Zerbe, J	714
Thomas, V	266	992		Whiting, f M	853	Zimmerman, B	304
Thompson, C G	63	Walton, M S	802	Whitting, F M	875	Zweig, G	43
Thompson, F B	615	Wang, W G	1028	Wiemeyer, S N	183	879	
Tomlinson Jr, W E	527	Ward, J	1047	Wilcox, J	918	Zwick, R W	672
Tostanovskaya, A A	954			Wilkes, L H	501	673	









NATIONAL AGRICULTURAL LIBRARY



1022757022